Dimensions of Capacity for Shared Decision Making

Cheryl Grayson Reynolds

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DIMENSIONS OF CAPACITY FOR SHARED DECISION MAKING

Cheryl Grayson Reynolds
DIMENSIONS OF CAPACITY
FOR
SHARED DECISION MAKING

A Dissertation
Presented to
the College of Graduate Studies of
Georgia Southern University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education
in
Educational Administration

Cheryl Grayson Reynolds
December 1997
July 11, 1997

To the College of Graduate Studies:

This dissertation entitled Dimensions of Capacity for Shared Decision Making, and written by Cheryl Grayson Reynolds is presented to the College of Graduate Studies of Georgia Southern University. I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education with a major in Educational Administration.

Dr. Ronald Davison, Supervising Committee Chair

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ABSTRACT

DIMENSIONS OF CAPACITY FOR SHARED DECISION MAKING

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This study was based on the rationale that no school district should design or implement a restructuring or reform initiative such as shared decision making (SDM) without a careful examination of the existing level of all the interrelated dimensions of restructuring and reform in each school. A school’s capacity is critical for successful reform; therefore, if policy makers are to design successful policies, they must pay attention to the multiple dimensions of capacity in a school’s climate.

This study’s first purpose was to develop a survey instrument based on the precepts of shared decision making as a restructuring mechanism for systemic reform. The study’s second purpose was to administer the instrument at each school in the participating school district to assess the professional staff’s perception for the degree of
each dimension of capacity as well as the degree to which the dimensions of capacity were inter-correlated.

This study used seven environmental indicators and four instructional delivery models as the eleven dimensions of capacity in a school's climate. The organizational components addressed by these environmental indicators included leadership, instructional guidance system, resources, knowledge, information, rewards, and power. The instructional delivery models reflected the systemic reform movement's goals of teaching for understanding, educating all students, and using technology and integrated approaches.

Quantitative procedures were used to conduct this study. The survey's development included establishing through a series of pilot studies its content, face, and concurrent validity, as well as its internal and test-retest reliability. The resultant survey instrument consisted of 73 items with a six-point Likert scale, seven 'yes'/no' response items, and one rank order item.

The survey instrument was used in the participating school district to collect the data. Descriptive statistics were used to measure the professional staff's perceptions of the strength of each of the dimensions of capacity at each school in the district. Pearson correlational statistics were used to determine how the dimensions of capacity were related among and between each other.

The findings of the study indicated that the strongest dimensions for restructuring and systemic reform existed in the elementary schools. The least capacity for restructuring and systemic reform as evidenced by strength of the dimensions existed at the high school followed closely by the middle school. Educating all students, integrated
approaches, leadership, instructional guidance system, information, and power had correlations of .50 or greater with a significance level of p < .01 with each dimension of capacity except for three; namely, use of technology, knowledge, and rewards. Use of technology, knowledge, and rewards, with correlations of 0.48 or less, were not correlated significantly with the other dimensions. Teaching for understanding and resources had correlations of .50 or higher with a significance level of p < .01 with educating all students, integrated approaches, leadership, instructional guidance system, information, and power but their correlation of 0.46 between each other was not significant.
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CHAPTER I
INTRODUCTION

General Introduction

A Nation at Risk Report (National Commission on Excellence in Education, 1983) and other reports and studies conducted during the period 1983-1997 had been directed at improving the quality of America's schools. Sidener (1994) observed that "many educators and legislators implemented various strategies aimed at improving schools, ranging from incremental innovations to systemic restructuring" (p. 16). The thrust of restructuring efforts was to support systemic reform by changing traditional roles and relationships. Decentralization through shared decision making was viewed as a key mechanism of these initiatives (Levine & Eubanks, 1992; Wohlstetter, Smyer, & Mohrman, 1994).

Decentralization using shared decision making as a mechanism for systemic reform had become increasingly popular in America's public schools. Various forms of shared decision making had been adopted by more than one-third of the nation's school districts (Ogawa & White, 1994). These initiatives had many descriptors, including participative management, site-based management, school-based autonomy, and school-based management. Nevertheless, all embraced the belief that restructuring schools would lead to systemic reform in teaching and learning (Elmore, 1995).

Mohrman and Wohlstetter (1994) described shared decision making as a "change in governance and management whose purpose was to stimulate further organizational change to foster improvements in educational outcomes and the ability of schools to serve
the needs of their communities" (p. 267). These investigators maintained that shared decision making was a "systemic change that requires a transition to a new way of managing and a new logic for organizing" (p. 256) and was not a low-level innovation or program that could easily be adopted. Mohrman and Wohlstetter (1994) also maintained that shared decision making was simply one strand of educational change that "must fit with the other strands of systemic reform, new approaches to teaching and learning, and enhanced teacher professionalism" (p. 18).

Mohrman, Mohrman, Ledford, Cummings, and Lawler (1989) posited that any restructuring initiative designed to facilitate the organization's ability to accomplish its mission required a large-scale commitment to change. The actual change process was as crucial as the proposed structural change itself (Mell & Mell, 1990; Roemer, 1991).

Tichy and Devanna's (1986) three-stage model for institutional change recognized that engagement in any significant change effort had to be viewed as a multi-step process. The Tichy/Devanna model conceptually supported the need to address the various stages of planned change, including the foundational stage as the recognition of the need to change, which had to be in place before launching any major change initiative. The foundation stage included evaluating the organizational climate by determining the extent which interdependent and interactive precepts of shared decision making as a mechanism for systemic reform existed prior to the change initiative (O'Day, Goertz, & Floden, 1995). Newmann (1991) observed that many restructuring efforts get the sequence of events backwards. They start by setting up the organizational structure and then plan the curriculum to fit the structure and chose the criteria for student success. Elmore (1995) concurred noting that improved teaching practices and shared expectations and beliefs
about good teaching had to be in place before organizational structures were created that matched these "shared skills, expectations, and beliefs" (p.26).

This study used seven environmental indicators and four instructional delivery models as the precepts for shared decision making as a restructuring mechanism for systemic reform. These constructs were previously identified by Robertson, Wohlstetter, and Mohrman (1994) as well as Newmann and Wehlage's (1995) constructs of student learning, efficacy pedagogy, school organizational capacity, and external support. The organizational components addressed by these environmental indicators included leadership, instructional guidance system, resources, knowledge, information, rewards, and power. The instructional delivery models reflect the systemic reform goals of teaching for understanding, educating all students, and using technology and integrated approaches. Herman, Morris, and Fitz-Gibbon (1987) conceptually supported the use of these dimensions in the assessment of an organization's climate prior to the development and adoption of a new policy or program.

Collectively, this study referred to the seven environmental indicators and four instructional delivery models as dimensions of capacity. This terminology was based on the rationale of O’Day, Goetz, and Floden (1995) and Corcoran and Goertz (1995) who posited that capacity was "a critical element in education reform" (p. 9) and that if policy makers were to design policies, they had to pay attention to the multiple dimensions of capacity.

Climate included individual classrooms, notably the instructional delivery models being utilized. It was speculated that climates of individual schools within the district contributed, in turn, to affect the school district’s climate (Lindelow & Mazzarella, 1985).
This assumption was congruent with O’Day, Goertz, and Floden’s (1995) supposition that dimensions of teacher capacity were interdependent with those of the school and district.

This study was based on extensive research which revealed the need for an instrument that would assess the existing level of all the interrelated precepts of shared decision making in each school. The study was conducted in a school district contemplating the implementation of shared decision making based on the rationale that no school district should design or implement shared decision making as a systemic reform initiative without such an examination. The extant literature conceptually supported the viability of a “staged” approach to large-scale organizational restructuring in schools. Stage 1 of this process required a comprehensive study of each affected school (Mohrman, Mohrman, Ledford, Cummings, & Lawler, 1989).

The dimensions of capacity as the variables to be used in the developments of an instrument were congruent with the five suppositions proposed by Marsh (1994). First, schools must focus on “higher-order thinking, conceptual understanding, and powerful communication for all students” (p. 216). Second, there must be a fundamental redesign of the system of schooling in order to reach desired goals. Third, the organization redesign process was complex and on going. Fourth, the school must become the “locus for planning and implementation” of “teaching, assessment, and learning” goals (p. 217). And lastly, shared decision making “can play a very key role in achieving these outcomes” (p. 217).

Although this study was limited to one school district, the following circumstances make this approach not only acceptable but appropriate. First, there was a
sufficient body of knowledge that conceptually supported the conduct of a district-wide study (see Odden & Wohlstetter, 1992; Odden & Odden, 1994; Wohlstetter, Smyer & Mohrman, 1994; Robertson, Wohlstetter, & Mohrman, 1994; Mohrman & Wohlstetter, 1994). Specifically, the environmental indicators and instructional delivery models identified by Robertson, Wohlstetter, and Mohrman (1994) and Newmann and Wehlage (1995) as related to the precepts of shared decision making as a restructuring mechanism were appropriate criterion measures as dimensions of capacity identified by O’Day, Goetz, and Floden (1995) and Corcoran and Goertz (1995). Second, the dimensions of capacity were defensible constructs for developing a valid and reliable survey instrument. Third, a self-report conducted at each school was the most appropriate method of gathering the data of the professional staff’s perceptions.

Statement of the Problem

The primary problem was the lack of a valid, reliable survey instrument that could measure the degree to which the precepts of shared decision making as dimensions of capacity exist in a school’s climate. Without an in-depth study that assesses the degree to which the precepts of shared decision making existed in a school’s climate, there was no reliable way to adequately develop a plan for implementation. Therefore, the secondary problem was to administer the instrument at each school in the participating school district as a means to assess the professional staff’s perception for the degree of each dimension of capacity in the school’s climate.

Purpose of the Study

This study’s first purpose was to develop a survey instrument based on the precepts of shared decision making as a restructuring mechanism for systemic reform.
The study used the constructs of environmental indicators and instructional delivery models as the precepts. Collectively, these precepts were called "dimensions of capacity." The study's second purpose was to administer the instrument at each school in the participating school district to assess the professional staff's perception for the degree of each dimension of capacity as well as the degree to which the dimensions of capacity were inter-correlated.

The data generated by the survey would not only assist the school district, but more importantly, contribute a survey instrument and new knowledge about the precepts of shared decision making as dimensions of capacity. Specifically, the resultant findings would provide benchmarks for each school as it designs a plan to implement shared decision making. The data generated by this study would also provide baseline information that would support future studies on the implementation of shared decision making as a restructuring mechanism for systemic reform. This new knowledge would also be useful to other school districts either contemplating shared decision making or engaged in shared decision making.

Importance of the Study

The importance of this study was best expressed by Glickman (1993) who observed that, "studying a school is part of taking action in that school. To study without acting gets a school nowhere; to act without study gets a school somewhere - lost. Studying and acting, when integrated, lead to the same result - an educative, purposeful school" (p. 55). Glickman also advised educational leaders to "keep the critical-study process consistent with other agencies' requirements for school improvement" (p. 55). An assessment conducted prior to action was also important due to the interpreted
investment in time, energy, and funds to develop and implement shared decision making. This investment mandated that the educational community have access to data that supported knowledgeable decisions about shared decision making prior to broad-front adoption.

This study’s effort to identify the precepts of shared decision making as dimensions of capacity, and to use that information to develop a survey instrument capable of measuring the dimensions of capacity was important because it would help not only the affected school district but the larger educational community fill a large information void. The resultant findings on the presence of the dimensions of capacity in the schools and the analysis of the relationship of those dimensions would expand the knowledge base and assist local policy-makers and practitioners in making more appropriate decisions prior to implementing shared decision making. The results of this study would be broadly shared with the educational practitioners and researchers through various dissemination channels.

Assumptions

The initial assumptions supporting this study specifically related to the school district. First, it was assumed that district policy makers, administrators, and faculty were interested in implementing shared decision making as a restructuring mechanism for systemic reform. Second, it was assumed that district policy makers, administrators, and faculty wanted to build each school’s capacity to engage in systemic reform by restructuring through shared decision making. Third, it was assumed that the district policy makers (i.e., the board of education), central-office administrators, and faculty had
the right and needed to know to what degree restructuring and systemic reform precepts existed in their schools prior to launching shared decision making.

The proposed study further assumed that the self-report procedures were the most direct way to assess affected participants' beliefs. It was also assumed that participants (a) were best able to recognize their own beliefs; (b) had no reason to lie about their beliefs; (c) were honest when anonymity was guaranteed; and, (d) had adequate time to think about their responses (Henerson, Morris, & Fitz-Gibbon, 1987).

Research Questions

The following primary questions were addressed by the development of an instrument to measure the dimensions of capacity for shared decision making:

1. To what extent does the instrument demonstrate content, face, and concurrent validity?
2. To what degree does the instrument demonstrate internal consistency and test-retest reliability?

The following secondary research questions were addressed in this study by the administration of the developed survey instrument:

1. To what degree do professional staff perceive instructional delivery as focused on the differentiated needs of all students?
2. To what degree do professional staff perceive integrated approaches are being used for instructional delivery?
3. To what degree do professional staff perceive technology being used for instructional delivery?
4. To what degree do professional staff perceive instructional delivery being directed to problem solving and greater student understanding as opposed to acquisition of facts and the reproduction of knowledge?

5. To what degree do professional staff perceive the principal’s leadership for building a climate of change?

6. To what degree do professional staff perceive existing teaching and learning processes as oriented to the realization of the school’s stated vision, mission, and goals?

7. To what degree do professional staff perceive the school’s existing internal and external resources as adequate for the realization of the school’s stated vision, mission, and goals?

8. To what degree do professional staff perceive they participate in professional development activities as increasing their knowledge and use of innovative instructional delivery models, interpersonal skills, and team work?

9. To what degree do professional staff perceive information about the school’s performance is being disseminated to faculty, students, and community?

10. To what degree do professional staff perceive incentive structures as rewarding both to individual and school performance?

11. To what degree do professional staff perceive power as being decentralized at the school?

   a.) Has the instructional council improved the instructional program?

   b.) Has the instructional council provided faculty input into the school’s decision-making process?
12. To what degree do professional staff roles influence the perception of dimensions of capacity?

13. To what degree are the dimensions of capacity inter-related?

Limitations

The scope and participants were limited to the participating schools and their respective professional staff. It was not within this study’s scope to assess procedures utilized at each site in the execution of the day-to-day management of the school or the current outcomes, such as student achievement, attendance, or staff morale. The intent was to develop a valid and reliable survey instrument that would be used to measure the degree to which each dimension of capacity existed at each school. As mentioned previously, the work of Herman, Morris, and Fitz-Gibbon (1990) conceptually supported the use of critical characteristics such as the precepts of shared decision making as dimensions of capacity in evaluating an organization’s climate prior to launching a change initiative.

Definition of Terms

The following terms used in this study were defined for the purpose of the study as follows:

**Climate**: the presence of the precepts of shared decision making as a restructuring mechanism for systemic reform in a school (Lindelow & Mazzarella, 1985).

**Dimensions of capacity**: the precepts of shared decision making as a restructuring mechanism for systemic reform expressed as seven environmental indicators and four instructional delivery models (O’Day, Goetz, & Floden, 1995; Corcoran & Goertz, 1995).
Environmental indicators: the seven precepts for shared decision making as a restructuring mechanism for systemic reform which includes leadership, instructional guidance system, resources, knowledge, information, rewards, and power. (O'Day, Goertz, & Floden, 1995; Wohlstetter, Smyer, & Mohrman, 1994; Newmann & Wehlage, 1995; Corcoran & Goertz, 1995).

Instructional delivery models: the four precepts for shared decision making as a restructuring mechanism for systemic reform including teaching for understanding, educating all students, using technology and integrated approaches. (O'Day, Goertz, & Floden, 1995; Wohlstetter, Smyer, & Mohrman, 1994; Newmann & Wehlage, 1995; Corcoran & Goertz, 1995).

Educating all students: an instructional delivery model which spanned across the full range of the ability spectrum giving every student the opportunity to learn through individualized instruction, non-graded classrooms, and ‘main streaming’ of students with special needs (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995; McDonnell, 1995).

Integrated approaches: an instructional delivery model which used both internal integration of the curriculum such as team teaching and external integration through linkages to the community and community services (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995).

Use of technology: an instructional delivery model used as a tool for application of practices in the workplace, integrative learning and production (Robertson, Wohlstetter, & Mohrman, 1994).
Teaching for understanding: an instructional delivery model used to develop students higher-order thinking skills such as problem solving and creating work that illustrated understanding and application rather than memorization and reproduction of knowledge. (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995)

Leadership: the efforts of the principal to involve many individuals in the building of a climate for change to achieve the school's desired instructional direction (Robertson, Wohlstetter, & Mohrman, 1994; Short & Greer, 1997).

Instructional guidance system: clear goals and vision established through the consensus of the school's faculty which was embodied in a shared instructional philosophy and improvement plan (Robertson, Wohlstetter, & Mohrman, 1994).

Resources: not only the internal resources of money, staffing, and time but external funding and business partnership targeted to accomplishing the school's instructional guidance system (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995).

Knowledge: the engagement of professional staff in professional development opportunities on a regular basis in a broad range of content areas, especially those areas related to participation in decision making and the process of school improvement as well as activities to enhance staff knowledge and skills in the areas of teaching and instruction (Robertson, Wohlstetter, & Mohrman, 1994).

Information: a well-developed system for not only sharing a comprehensive data base about the school's performance and innovations in other schools with a broad range of constituents but also soliciting information from external sources as well as internal sources (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995).
Rewards: a compensation system for staff behavior and school performance oriented toward achieving the school and district's goals (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995).

Power: the decentralization of decision-making by empowering a broad range of school-level constituents to be involved in the school's decision-making process. How much power is shared at a school is demonstrated by the number of professional staff who have input into the school's decision-making process. (Robertson, Wohlstetter, & Mohrman, 1994).

Perception: the mental grasp of ideas through the senses as a way to achieve understanding (The American Heritage Dictionary of the English Language, 1994).

Professional staff: the school-level administrators, guidance counselors, media specialist, classroom teachers, resource teachers, and instructional assistants at each school.
CHAPTER II

REVIEW OF RESEARCH AND RELATED LITERATURE

Introduction

This chapter reviews the literature related to four major domains that supported the development of a survey instrument to measure the extent to which the dimensions of capacity existed at each school. The four domains are restructuring and systemic reform, shared decision making as a restructuring mechanism, school climate, and organizational change. Based on these four domains, the chapter is divided into four major sections. First, the review of the perspectives, definitions, and goals related to restructuring and systemic reform included both the specific changes in school rules, roles, and relationships related to restructuring and the desired instructional delivery models of systemic reform. The desired instructional delivery models of systemic reform were educating all students, integrated approaches, use of technology, and teaching for understanding. Second, the review of shared decision making as a restructuring mechanism for systemic reform examines its variations and problems. Third, the literature examines school climate from the capacity of restructuring perspective. The school climate inquiry included the identification of the environmental variables related to a school’s ability to engage in shared decision making. Environmental indicators were: leadership, instructional guidance system, resources, information, knowledge, rewards, and power. Fourth, the literature on organizational change theory focuses on change in its educational context, the rationale for collective activity, the process of change, the
dynamics of transformation, and the rationale for design flexibility and self-design. A concluding section synthesizes the theoretical framework for this study.

Restructuring and Systemic Reform

David (1990) described restructuring and systemic reform of schools as a global undertaking. The countries of New Zealand, Canada, Great Britain, and Australia were engaged in nationwide efforts to invent and implement models for public education. David's research described examples of school districts and schools in the U.S. that were attempting to restructure. These districts included East Harlem in New York City, Jefferson County in Kentucky, Poway in California, Cincinnati in Ohio, Dade County in Florida, and Rochester in New York. An example of a state thrust for restructuring was California which awarded 102 schools with grants to implement school restructuring.

Perspectives, Definitions and Goals

Newmann and Clune (1992) regarded the global initiative for restructuring systemic educational reform as a global awareness of the need to improve education by changing the content and process of schooling. Restructuring the process of schooling provided the means to change content and build a teaching/learning environment that would support a high-quality curriculum and instructional program. This view was reinforced by Elmore (1995) when he observed that "structured change in schools is intended to produce changes in teaching and learning" (p. 23). Newmann and Wehlage (1995) reminded the educational community to always ask the "fundamental question: was the new structural tool or practice likely to improve our school's human and social resources to increase students learning?" (p. 2).
In this same realm, Cohen (1995) “considered systemic reform from the perspective of practice” (p. 14). Cohen judged that the perspective of practice implied “deep changes in at least three areas of instruction: knowledge of academic subjects, and teaching and learning; professional values and commitments, and the social resources of practice” (p. 14). Cohen viewed these areas as the “weakest elements in instruction in the United States” (p. 14).

The report of the NASSP Commission on Restructuring (1992) utilized the basic concepts of “systematic changes in school operations and focus on student success in school and in life” (p. 2) as the tenets that defined restructuring. Based on these restructuring tenets, the report used the “concrete conceptualization of school restructuring” (p. 3) from the Commission on Restructuring (June, 1991) to define restructuring “as the reforming of school organizational interrelationships and processes to increase student learning and performance, with a focus on the following:

1. Quality of learning experiences and outcomes.
2. Professional role and performance of teachers.
3. Collaborative leadership and management.
4. Redefined and integrated curriculum
5. Systematic planning and measurement of results.
6. Multiple learning sites and school schedules
7. Coordination of community resources, human and fiscal.
8. Equity, fairness, and inclusion for all students.

The same themes and focus were evidenced in the studies conducted by the Center on Organization and Restructuring of Schools at the University of Wisconsin - Madison.
Newmann (1992), Coordinator of the Center, defined the Center’s mission as the assessment of the influence of the following restructuring features in restructured public elementary, middle, and high schools:

1. increased control at the school site;
2. increased authority for teachers in shared decision making;
3. increased staff time for professional development;
4. grouping students heterogeneously;
5. grouping students and faculty together in families or teams for extended periods of time;
6. organizing instruction around small group and individual study;
7. governance structures that enhance parent involvement in school decision making and activities;
8. coordination of social services in the community to focus more directly on helping students succeed in school (p. 4).

Newmann conceived the restructured organizational features as falling into one of “four arenas of schooling” (p.6). The four arenas were student experiences, professional life of teachers, school governance, management, and leadership, and coordination of community resources. The Center would use the assessment of the restructured features “to examine the extent to which school restructuring can be used to promote six valued outcomes or qualities of schooling” (p. 7). The valued outcomes included authentic student achievement, equity, empowerment, communities of learning, and reflective dialogue.
Schlechty (1990) also referred to changes in relationships and processes to define restructuring. He defined restructuring as changes in the systems of rules, roles and relationships so schools could more effectively serve traditional purposes, as well as develop new ones. The same themes were reflected in the changes recommended by the Center for Policy and Research in Education (1987): (1) teaching and learning in schools; (2) conditions of teachers’ work in schools; (3) the governance and incentive structures under which schools operated. Elmore (1990) used these recommendations to develop the following three models for reforming and restructuring education:

Model 1: Rules of the Core Technology of Schools

This model was based on effective teaching strategies that incorporated the knowledge of pedagogy, a variety of teaching strategies with subject areas, the management of resources, and organizational patterns and structures. The model’s purpose was to change teaching and learning by revising the structure of schools and classrooms.

Model 2: Roles of Teaching

This model included induction practices and promotion, as well as general working conditions and communication. Knowledge, recognition, and autonomy were also elements of the model. Although this model relied upon the skills, values, and predispositions of teachers, it was enhanced by professional development and human resource management.
Model 3: Relationships Between Schools and Their Clients

This model included students, parents, the community, and the professionals that provided public education as clients. This model assumed that all clients must be included in the decision making processes of a school and school district (Elmore, 1990).

David (1990) viewed the purpose of restructuring as a long term, comprehensive change guided by a vision of schools as stimulating work and learning environments. She perceived that restructuring was designed to set into motion new educational practices. Therefore, restructuring should start with the past and move to improved practices that would lead to the school’s desired outcomes. Raywid (1990) concurred with David’s long term perspective on restructuring. She regarded restructuring as evolutionary not revolutionary. That is, school restructuring was systematic with collaborative planning and actions which moved the school toward its goals.

According to David Florio of the National Science Foundation, common themes in systemic reform included a greater emphasis on depth of knowledge, new relationships between people, more flexible physical arrangements in schools, and restructured time schedules (see Lewis, 1989). These themes were framed as twelve dimensions of educational restructuring by Conley (1993). The dimensions were grouped into three subsets: central, enabling, and supporting variables. Learner outcomes, curriculum, instruction, and assessment made up the central variables, labeled as such because they had a powerful direct effect on student learning. Enabling variables, closely related to instruction, consisted of the learning environment, technology, school community relations, and time. Supporting variables, those further removed from the classroom,
consisted of governance, teacher leadership, personnel structures, and working relationships.

Conley (1993) perceived that the most difficult restructuring subset to change was the core rules / central variables that deal with the reconceptualization of the nature of teaching and learning. Since teachers created the content and process for students to learn, any change of the core / central rules involved teachers as the key determinants (Conley, 1993). Cohen (1995) concurred noting that teachers had little knowledge about the improved instructional practices advocated by proponents of systemic reform. He perceived that part of the problem was the teachers' inadequate professional preparation. Cohen asserted that most teachers “learned to teach in a rather traditional and didactic manner” (p. 14).

**Instructional Delivery Models**

Even though raising school and student performance was the ultimate goal of restructuring and systemic reform, the intervening goal was to transform the learning environment by changing teaching practices (Robertson, Wohlstetter, & Mohrman, 1994; Mohrman & Wohlstetter, 1994). Whether improved instructional practices were regarded as innovations (Robertson, Wohlstetter, & Mohrman, 1994) or as standards for accountability (Hammond, 1993), they were considered fundamental elements in ensuring equality in educational opportunities and providing a quality learning environment for all students (Hammond, 1993).

Changing teaching practices meant addressing the core technology rules identified by Elmore (1990) and central variables identified by Conley (1993). Changing the nature
of teaching and learning involved not only what and how subjects were taught but how progress was measured and evaluated (Conley, 1993).

Robertson, Wohlstetter, and Mohrman (1994) identified four interwoven instructional delivery models that were based on improved practices. These models were a reflection of the assumptions by Smith and O’Day (1991). They assumed that it was essential for all students to have an understanding of academic content, complex thinking, and problem solving, and that faculty perceived that all students were capable of learning challenging content and complex problem skills. The four interlocking instructional delivery models identified by Robertson, Wohlstetter, and Mohrman (1994) and Newmann and Wehlage (1995) include the following: educating all students, integrated approaches, use of technology, and teaching for understanding.

**Educating all students.**

King (1994) asserted that the “academic performance of all students is an important national concern” (p. 1). This concern is grounded in the principle of equal educational opportunity. It meant that each student has the right to the opportunity to learn. The conception of equal educational opportunity is based on both equal protection of individuals and “universal guarantees to maintain adequate provision of educational service for all citizens under compulsory education laws” (James, 1991, p. 204). In regard to student achievement and students’ opportunity to learn, “a large body of research on the determinants . . . suggested that opportunities to learn were defined not just by the curriculum content that students were offered but also by how that content was presented and who presented it” (McDonnell, 1995, p. 309).
The report from the National Association of Secondary Principals (NASSP) Commission on Restructuring (1992) indicated that research on learning had presented "the negative effects of schools' failure to adapt instruction to students' special needs" (p. 34). In other words, the schools were not educating all students. The same report noted that the "effective schools" movement began "with a clear focus" on educating all students (p. 34).

According to Corcoran and Hansen (1983), a synthesis of the effective schools research showed that effective schools had certain factors in common. One such factor was the expectation of administrators and teachers that all students can learn. Teachers' expectations were as important in educating all students as the opportunity to learn. Cohen (1995) asserted that schools and specifically teachers "could barely boost students' achievement if they thought them incapable of learning much" (p. 15). A summary of the effective schools literature indicated that when all students are expected to learn, the students were provided with the opportunity to learn. These opportunities were built into the school philosophy and programs as evidenced by goal-directed behavior and a staff "devoted to student learning" (Wohlstetter & Smyer 1994, p. 83). Moreover, achievement and teaching in these schools were excellent, student progress was monitored frequently, tests measured what was taught, and results were used to modify programs (Corcoran & Hansen, 1983).

Melvin (1991) observed that a school grounded in the expectation that all students can learn would be engaged in the delivery of educational opportunities to educate all students. Educational opportunity for all students was accomplished by implementing effective teaching practices identified in the literature as well as those determined to be
effective through statistical methodologies. Educating all students was the initial instructional delivery model which united the three literature-based instructional delivery models: integrated approaches, use of technology, and teaching for understanding.

**Integrated Approaches.**

An integrated approach was defined by Shoemaker (1995) as crossing subject-matter lines, bringing together various aspects of the curriculum that focused on broad areas of study to make meaningful associations. Willis (1995) viewed integration as the ultimate blend of disciplines into thematic or problem solving pursuits in a range of approaches to link disciplines including parallel teaching and interdisciplinary units. Jacobs (1989) noted that linking the disciplines brought coherence to the random facts thrown at students by demonstrating how the facts interrelate. As such, an integrated approach would provide a greater understanding than could be obtained by examining each part separately (Walker, 1995). Understanding was holistic in that the integrated approach was set in a context in which instruction was woven together thematically (Ponder & Holmes, 1992). As a result, the student’s ability to make and remember connections and to solve problems was increased (Kovalik & Olsen, 1994).

The concept of relevant linkage was initially proposed by Kilpatrick (1918, see Kain, 1993) when he advocated that instruction should be based on the interests of students rather than separate subject areas. Kain (1993) referenced an Eight-Year Study conducted in the 1930s that concluded that a fused curriculum design in thirty high schools substantiated the benefits of related instruction. This study indicated that information was more easily encoded and retrieved when it was connected to a web of meaning. The students involved in the study had more intellectual curiosity, a better
attitude toward achievement, and higher achievement level in college than those students from traditional college prep high schools.

Kinsley's (1992) review of literature on integrative approaches included the writings of Tyler (1949) and Taba (1962). Both Tyler and Taba advocated the importance of linking learning experiences into the curriculum as a method to establish the framework for understanding. Kinley's review also included the writings of Eddy (1988) and Cavanaugh (1989) which moved the idea of linkage to a new level by proposing that how and what students learn must be integrated as a whole in order to teach students in a way that would reach them.

The concept of interdisciplinary instruction became a cornerstone of the middle school philosophy. As interdisciplinary instruction was implemented in middle schools, research on student performance and instruction revealed the benefits of connecting discipline content as an instructional delivery model (Alexander, 1984). Lawton (1994) conducted a study of 15,000 eighth graders in schools using interdisciplinary approaches to instruction. Lawton found that students scored higher on standardized tests than their peers enrolled in single subject content areas.

Studies on teachers' willingness to use integrated instructional practices suggested a relation to teachers' teaching experience. For example, Scheidler (1994) found that teachers' previous experiences influenced their willingness to use integrated instructional practices. When these teachers worked with other teachers who taught differently or had taught a different subject in team-teaching, they were more willing to work with the integrated instructional model. Experienced teachers who had not worked in a different way tended to cling to traditional one-subject instructional practices.
The concept of integrated approaches had expanded beyond interdisciplinary instruction. Kinsley (1992) advocated an integrated approach between community and schools for improved instructional practices and performance. Conley (1993) observed that integration included consolidation of services between social service agencies and schools to make sure that all students had the opportunity to learn.

**Use of Technology.**

Through technology, networked information and knowledge could provide any student with a rich, high quality environment of educational resources (McClintock, 1995). Conley (1993) saw the use of technology in the classroom as not only the means to enhance the quality and quantity of learning but as a means to empower learners. Walker (1995) cited the use of appropriate technology - phones, electronic mail, and fax machines as empowering teachers' in their ability to facilitate learning and becoming partners in integrative education.

The Institute for Learning Technologies at Columbia University viewed the use of technology for the delivery of instruction as the creation of a different pedagogical environment - an environment that transformed scope and sequence (McClintock, 1995). Since all materials pertaining to curriculum were accessible to any student or teacher at any time, instruction did not need to be sequenced or compartmentalized into units of instruction. The scope of the material provided multiple paths to high achievement (McClintock, Chou, Moretti, & Nix, 1993; McClintock & Taipale, 1994).

Reibel and Wood (1994) contended that students' achievement should be based on students constructing connections to understand and define themselves and their world. They contended that students using a digital library rather than a textbook were
more likely to construct connections because their learning transcends knowing content to how to find, retrieve, and understand material that one judges relevant. This environment changed assessment of students’ performance from what they know to what can they do with intellectual material. It also changed the teacher’s role from teaching knowledge to teaching for understanding.

**Teaching for Understanding.**

Teaching for understanding was an extension of integrated approaches. Perkins and Blythe (1994) described understanding as going beyond knowing. Newmann and Wehlage (1995) regarded teaching for understanding as both construction of knowledge and disciplined inquiry. It is through construction of knowledge that students “build on prior knowledge that others have produced” to “organize, synthesize, explain, or evaluate information” (p. 6). It is disciplined inquiry when students are engaged in “complex cognitive work” (p. 9). In other words, students are pressed to think beyond what they know. It is the actual application of knowledge based on the integration and mastery of a number of component disciplines (Gardner & Boix-Manissla, 1994).

Newmann and Wehlage (1995) described teaching for understanding as a component of their standard of authentic pedagogy. That is, students were required to think, to develop in-depth understanding, and to apply academic learning to important, realistic problems. Newmann and Wehlage (1995) define authentic achievement as “the three criteria—construction of knowledge, through disciplined inquiry, to produce discourse, products, and performances that had meaning beyond success in school” (p.11). Teaching for understanding ensured that students were able to apply what they had learned (Walker, 1995).
Teaching for understanding has three frames: goals, performance and assessment. The performance requires that students be able to explain, find evidence and examples, predict, and represent the learning in new ways. It means carrying out applications. The assessment perspective demands that students understand criteria, receive feedback from many sources, and have time to reflect (Perkins & Blythe, 1994).

Teaching for understanding grew out of research that indicated that students did not understand key concepts as well as they could or should. Previous studies substantiated students' misconceptions in math and science, their limited view of history, and their tendency to stereotype literary works (Perkins & Blythe, 1994). These problems would be avoided if students were thoughtfully engaged in learning. Engagement could be accomplished by making connections between students' lives and content, principles and practice, and past and present.

All four of the instructional delivery models are reflections of the goals systemic reform. As goals, the instructional delivery models are also reflections of the demands of society. Societal demands on education are historical.

The Influence of U.S. Industry

Historically, the reform movements in education were initiated by external forces (Coombs, 1987) and were designed to promote certain positions or goals (Mitchell & Encarnarion, 1984). In addition, as Moorman and Egermeier (1992) observe “in times of national crisis, the country turns toward education and the schools” (see Lane. & Epps, 1992, p. 18). It was from this perspective that the first and second waves of educational reform in the 1980s were placed in the “cyclical pattern of major reform movements” that “shaped U.S. education for the last hundred years” (Murphy, 1990, p. 5). A perceived
threat to the nation's economic well being influenced the 1980s waves of educational reform. U.S. industry contended that although there were a sufficient number of high quality high school and college graduates to meet the "workforce needs of the largest and foremost firms", most high school graduates did not have "adequate skills to meet the needs" of the rest of the industrial sector (Lane. & Epps, 1992, p.31).

The perceived threat to the nation’s economic well being

The perceived economic threat to the nation’s economic well being resulted in two challenges to the nation’s schools. First, schools were to “shift from programs emphasizing basic skills and test mastery” to programs that developed “higher order thinking skills and intellectual independence” (Lane & Epps, 1992, p. 31). Second, schools were to serve not only the top students that were the “most traditionally promising” and the bottom students that were the “most needy,” but also the large and “typically neglected group in the middle” (p. 31).

It was the second challenge, to educate all students, that opened the reassessment on equality of access. Many believed as Kershner and Connolly (1991) and Shellin (1990) did that the existing design for schools was incompatible with the needs of large numbers of students that were at risk in American society. Howard (1991) contended that schools were the only social institution capable of serving at risk students. Schools had to serve all students with programs that emphasized cooperative learning strategies, diverse teaching styles, and coordination of several community and social services through the school.
Decentralization

In addition to the influence of U.S. industry's contention that the economic well-being of the nation was threatened by the lack of qualified high school graduates, the second wave of reform was also influenced by the decentralized strategies being used by U.S. businesses and industries (Griffin & Phipps, 1992). Many private-sector organizations had been experimenting with or had actually adopted decentralized / participative management approaches for decades. The private sector's adoption of these strategies was in response to the increased levels of competition caused by the globalization of the marketplace and the deregulation of previously protected areas (Mohrman, 1994).

Mohrman (1993) proposed that many of the American business community's objectives for decentralized management were to empower workers, democratize the workplace, and improve productivity and quality. However, the challenge to increase productivity often was not only to improve outcomes and quality but also to reduce costs, sometimes up to 50 percent. The most effective cost-cutting strategy was to set clear performance targets at the top of the system, flatten the organizational structure, move decision making down to work teams actually providing the service, and hold them accountable for results. Methods of decentralization took many forms, including quality circles, worker surveys, job enlargement, total quality management, and continuous improvement (Lawler, 1986; 1992; Lawler & Mohrman, 1993; Mohrman, 1992; 1993).

Participative management.

Weisbord (1987) noted that the promotion of participative organizations dated back to the 1930s but did not become popular in the U.S. as the concept of participative
management until the 1960s with the works of Chris Argyris (1964), Douglas McGregor (1960) and Rensis Likert (1961). They supported participative management as a means to achieve greater productivity and employee satisfaction. Their work advocated participative management in the context of traditionally designed bureaucratic organizations based on values of human growth and development (Mohrman, 1994).

During the 1980s, high performing work systems’ concepts and practices began to be applied in service and knowledge organizations. Although the initial reason for the adoption of the model in the service and knowledge sector was based on pressures of the marketplace to do more with less, there was a growing body of knowledge that further conceptualized the application of the high performing work model in these settings (Mohrman, 1994). The premise was that the effectiveness of organizations engaged in knowledge and information-based work was dependent on applying knowledge and information to decision making. Therefore, improving effectiveness required changes in the way information was used and decisions were made (Pava, 1983; Zuboff, 1984). This rationale was coupled with the reality of implications of new technological capabilities on organizational design (Walton, 1989) and empirical research that indicated the effectiveness of a business was greater when the conditions for employee involvement were in place (Mohrman, Cohen, & Mohrman, 1994). Further, innovations in successful companies pushed authority down to the lowest level so that decisions were made by employees with first hand knowledge of the consequences of those decisions (Peters & Waterman, 1982).

In addition to the implementation of the high performance model, the momentum for participative management was enhanced in the 1980s by the popularity of total quality
management (TQM). In TQM, quality was defined through the eyes of the customer. High quality was meeting the requirements of the customer. Employees were given the power to generate solutions to quality problems and improve the work processes. Employees representing various organizational perspectives were involved in problem-solving forums to generate solutions and improve quality (Crosby, 1979; Deming, 1986; Juran, 1989).

Ouchi (1981) referred to shared decision making practices in Japanese corporations as Theory Z. Theory Z was characterized by small, autonomous teams to perform tasks. George (1993) proposed that schools model Theory Z by instituting interdisciplinary teams of teachers to plan and implement educational programs.

Dertouzos, Lester, and Solow (1989) reported on a major international study that sought to identify reasons for the decline in the competitive stance of U.S. industry. The design of organizations and the management of human resources were isolated as the primary factors that accounted for organizational success. Findings of this study led to recommendations that industry invest more in the capabilities of its people and to establish partnerships with employees and other organizational stakeholders. It also advised organizations to remove the functional boundaries that divide people within organizations. In addition, the study advocated providing more meaningful work and more opportunity for employees to make a difference in organizational performance. These investigators found that a decentralized / participative form of management and organizational design provided a strategic edge in the ability of organizations to perform better.
High-involvement management (Lawler, 1986)

Embedded in the high involvement management organization was the underlying belief that high organizational performance was possible only when all employees were deeply involved in the continuous effort to improve organizational capability and the overall success of the enterprise. High-involvement management was a new way of functioning that was shaped and supported by the way the organization was designed. It represented large scale change (Mohrman & Wohlstetter, 1994).

Mohrman and Wohlstetter (1994) regarded Lawler’s original work as an organizational framework that transcended the organizational setting and served as a set of general design principles for any institution interested in obtaining high performance. Lawler’s work was grounded in studies from the private sector that identified four key environmental indicators in decentralized organizations that improve employee participation and involvement. The four environmental indicators were power, knowledge, information, and rewards. In addition to the decentralization of the four environmental indicators, organizations that successfully utilized high-involvement management strategies characteristically had work responsibilities which were complex, collegial, and uncertain. More specifically, high involvement managers were able to decentralize power, knowledge, information, and rewards most effectively when the organization was engaged in knowledge production, existed in a changing environment, and included job tasks which were interdependent and complex—requiring constant decision making. The high-involvement manager’s goals were to increase the commitment of employees to organizational performance and to provide employees with

Mohrman, Odden and Mohrman (1992) concluded that the organizational characteristics, work conditions, and goals of schools striving to decentralize through shared decision making match the criteria for using the high-involvement precepts successfully. Odden and Odden (1994) posited that the high involvement model can be used to create an organizational design that can build a school's capacity to effectively support shared decision making as a tool for improved school performance. Mohrman and Wohlstetter (1994) conceived shared decision making as a component of an emerging design of the high performance school. Consequently, shared decision making had to be examined in the context of other aspects of school reform.

Wohlstetter, Smyer, and Mohrman (1994) used the high-involvement framework to study the relationship between decentralization initiatives and efforts to improve instruction and curriculum. They found the high-involvement model helpful in explaining why some schools are more successful than others in implementing changes in the organization, the curriculum, and the instructional delivery.

In an effort to identify the factors accounting for successful decentralization through SDM adoption, Odden and Odden (1994) conducted a study in Australia which utilized the high-involvement framework conceptualized by Lawler, (1986), and Mohrman, Lawler and Mohrman (1992) to analyze school decentralization efforts. The findings of this study supported the tenets of high involvement; namely, the opportunity to change was produced when power, knowledge, information, and rewards were decentralized.
The tenets of decentralization, participative management, and the high involvement model were congruent with the research on effective schools. Namely, faculty empowerment through participation in decision making. The effective schools research was also congruent with the goals of systemic reform.

**The Influence of Effective Schools Research**

Much of the effective schools research was a reaction to the 1966 Coleman Report which indicated that family background and social composition were the major determinants of student achievement. The implication was that schools had little influence on student outcomes. Research on effective schools was a compilation of several studies in schools which experienced high rates of student academic success, especially in the basic skills. The effective schools research focused on school and school system characteristics as primary determinants of increased achievement and improved morale rather than student characteristics (Corcoran & Hansen, 1983).

Fullan's (1985) review of the effective schools literature identified the following factors as the characteristics of effective schools: empowerment, strong administrative leadership, focus on instruction, high expectations for students, clear goals, an orderly atmosphere, a system for frequent monitoring of progress, on going staff training, and parent involvement. As suggested by Levine and Eubanks (1992), SDM became linked to effective schools due to the importance it placed on faculty empowerment through participation in decision making. The linkage was strengthened by Taylor and Lezotte's (1990) study which found that the development of successful school improvement projects was associated with schools that emphasized the functioning of school-based councils. As explained by Levine and Lezotte (1990), an association appeared to exist
between the characteristics of effective schools, school improvement, and
decentralization through shared decision making adoption. Katz (1991) concluded that
the effective schools research gave credence to the belief that schools could be improved
by using shared decision making as the mechanism for restructuring.

Shared Decision Making

Shared decision making was used to describe an approach to school restructuring
that shifts power from the district office to the school and the endeavor at the school level
to redistribute power within the school by establishing a shared decision making council
(Sidener, 1994). Power vested at the school level was not a totally new concept. The
history of U.S. education was characterized by shifts between centralization and
decentralization. The first multi-classroom schools were managed by teachers and a
principal teacher. After World War II, the growth of teacher unions and urban school
districts led to more centralized and bureaucratic organizational designs. The goals of
these structures from the 1950s onward were increased efficiency and improved equity.
Principals were middle managers directing district policies and procedures to the teachers
(Popkewitz, Tabachnick, & Wehlage, 1982).

Educational changes traditionally ended up looking very much as before it all
began (Tye, 1992). Beginning in the 1960s, in response to the USSR's space
achievements, a series of federal initiatives became law. The intention was to promote
change and improvement in schools, based on national goals, which were to be
implemented at the local level. Local school districts were compliant in accepting these
regulations and accepted the funding provided by the federal government. Most of the
efforts and outcomes, labeled as reforms, however, resulted in a rash of activities, rather
than actual change processes. Science and math classrooms increased, remedial programs were born, and testing became an issue, all of which led to minimal actual change and improvement (Timar, 1989).

Shared decision making’s roots were traced to the decentralization efforts of the 1960s. Gittle (1975) and White (1989) noted that the first endeavors for community control and decentralization began in the 1960s. Both researchers concluded these efforts were failures in altering the locus of authority or to substantially improve schools. They cited the replacement of one form of bureaucracy with another while avoiding the transfer of power to the school site as the reason for the failure.

Variations in Concept and Practice

Milligan (1994) described shared decision making as “a complex concept whose goal was clear, but whose implementation was lost in the labyrinth of methodology” (p. 135). Even though most shared decision making programs were similar in their emphasis on decentralizing power, Ogawa and White (1994) shared Milligan’s assertion noting that “both the concept and descriptors of the programs” were frequently “vague or ambiguous” (p. 74). The extant literature on shared decision making programs revealed that this approach to educational reform takes many forms (Clune and White, 1989; David, 1989; Malen, Ogawa, & Kranz, 1990). Malen, Ogawa, and Kranz (1990 a & b) found the shared decision making was “a generic term for diverse activities” and “an ambiguous concept that defies definition” (pp.298-299). Cotton (1992) also found dozens of definitions, but explained that “definitional differences are understandable, reflecting as they do the real variations in structures and operations found in different shared decision making programs” (p. 2).
Projects and Research.

Although most shared decision making project reports simply described a project's success (Malen, Ogawa, & Krantz, 1990a), some included recommendations for shared decision making's implementation. These reports stressed the critical need for the school board and superintendent's support and warned of the resistance for change (Mitchell, 1990a, 1990b). Domenech (1989) included training in problem-solving techniques for shared decision making participants and warned that democratization needed to be gradual in his advice for implementation. Johnston, Bickel, and Wallace (1990) stressed the importance of school climate and leadership for shared decision making projects. Aronstein, Marlow, and Desilets (1990) described the change in the principal's role from an ultimate decision maker to facilitator as crucial to the implementation of shared decision making.

A review of dissertations on shared decision making between January 1985 - February 1995 indicated that the recommendations from the project reports were also reported in dissertations as elements related to the implementation of shared decision making. For example, Chorewycz (1994) concluded that the school board's support and the superintendent's leadership and support for shared decision making were important factors for shared decision making's success. Many studies determined that the principal's leadership was vital in the shared decision making process (Adamo, 1993; Bales, 1994; Barnes, 1993; Huffman, 1994; Hume, 1993; Jochim, 1994; Lew, 1992; Nolte, 1994; Sisemore, 1994; Slatin, 1995; Teschke, 1994; & Vincent, 1993). Lew (1992) in another study reported that the principal was the key to developing a collaborative climate, shared beliefs and values. Nolte (1994) found that principals set
the vision and direction of their schools, and fostered communication, facilitation, and empowerment. Adamo (1993) found the involvement and leadership style of the principal was critical to restructuring efforts in a school.

Sidener (1994), Torian (1993), and Marsillo (1992) found that the leadership of the principal and superintendent, as well as the support of the board, was significant in the success of the shared decision making process. Sidener (1994) concluded that shared decision making was a vulnerable process that had to be strongly supported by the principal and the superintendent. Torian (1993) reported that the principal was identified as the key leader and change agent, but support from superintendents and school committees was crucial in the complex process of shared decision making.

Several studies confirmed project recommendations for the training of participants involved in shared decision making (Bales, 1994; Deleon, 1993; Frederick, 1995; McGuirk, 1994; Nolte, 1994; Read, 1995; Scheidler, 1994; & Wenzel, 1994). Bales (1994) determined that staff development was vital to both teachers and principals during the shared decision making process. McGuirk (1994) analyzed that teachers were generally willing to participate in shared decision making if the minimal conditions were met. One of those conditions was necessary training in the content of decision areas or in group process skills. Cox (1995) found that principals and teachers agreed that in-service training must be improved if shared decision making was going to be successful. Read (1995) indicated that leadership and knowledge and skills about shared decision making were two conditions that accounted for 46% of the variance in the level of shared decision making in the total sample surveyed.
Several studies found that school climate, including leadership and training, was critical in the implementation of shared decision making (Lew, 1992; Huffman, 1994; Kelly, 1992; Kinnear, 1994; Sidener, 1994; & Weaver, 1994). Kelly (1992) found that certain factors involving characteristics of the institutional setting and implementation strategy consistently affected the outcome of the educational change effort. Characteristics of the institutional setting included a clear sense of direction and purpose; commitment to and support for the innovation from multiple groups of personnel; effective and supportive leadership; and a learning environment that fostered communication, shared-decision making, and ongoing staff development.

Akin (1995) established the interrelatedness of climate, leadership, training, and resistance to change. She concluded that teachers’ resistance to change was due to their professional norms, i.e., their education philosophy and beliefs. Most teachers had not been convinced of the need for change in curriculum and instruction. She further observed that even though educational researchers had found the existence of a positive school climate to be key to reform of instruction, few school administrators had a sufficient understanding of climate factors or training in interpersonal relationships that were necessary to shape an organization that could accept and maintain change.

Malen, Ogawa, and Krantz (1990a) reviewed eight studies on shared decision making. The studies were the California School Improvement Program evaluation, the Rand Voucher Plan Study, the Rand Study of Federally Funded Innovations, David and Peterson’s School Improvement Study (1994), a study of devolution in Australia, an evaluation of New York’s Experimental Elementary Program, a study of Minnesota’s school-based management program, and the investigation of Salt Lake City’s school-
based management plan. The generalized conclusion drawn across all of the studies was that shared decision making had not fulfilled its promise. The reasons given for the conclusion were the following:

1. lack of impact on student achievement;
2. limitation on authority;
3. lack of innovativeness once empowered to make changes;
4. little impact on school improvement plans;
5. only a fleeting, unsustained boost to morale;
6. norms of behavior which undermined stakeholders to the point of actually taking the authority given to them; and
7. little impact on policy

Although the review by Malen, Ogawa, and Krantz (1990a) found no empirical evidence that supported a relationship between shared decision making and desired outcomes, it had identified some factors from the original studies that were related to the implementation of shared decision making. In the California School Improvement Program study, Berman; Weiler, Czeak, Gjelten, and Izu (1981) found that organizational climate and the competence of the principal made a difference in the way the School Improvement Program (SIP) was implemented (Degener, 1983). The researchers concluded the following:

background factors will dramatically influence the implementation process at the local site ... In some schools, SIP was a catalyst for change. It sparked new ways of planning, stimulated a spirit of school-wide cooperation and renewal, and was instrumental in raising student performance. (Marsh & Berman, 1984, p. 6)
The original study on New York's Experimental Elementary Program also focused on the leadership factor. Mann (1994) concluded that the leadership of schools was the key to the level of input elicited in a shared decision-making structure. Shavelson (1981) in the original study of the Rand voucher also stressed the importance of the context of the individual school on the way in which the voucher plans were implemented. He reported that when teachers perceived that the staff was cohesive, that policies were agreed upon, and that the principal was supportive, schools had higher reading achievement scores.

Malen, Ogawa, and Kranz (1990) set forth guidelines or steps for success with shared decision making based on their research of unsuccessful implementation effort. The guidelines included the following:

1. The shared decision making plan must specify what authority was delegated, how it was distributed, and how participants were to be enabled to accept the authority.

2. Participants must be provided with the necessary resources in terms of time, training, technical assistance, and funds.

One of the most publicized implementations of shared decision making was in Dade County Florida Public Schools (David, 1989). This county piloted shared decision making models in 1987 with 33 schools indicating that the implementation process had neither been smooth nor focused. Rungeling and Glover (1991) found support for shared decision making but also found that respondents were unsure of the goals of shared decision making. Summers and Johnson's (1995) research indicated that improved student achievement became an explicit objective at a late stage. Any changes in academic performance were assessed relative to schools with and without shared decision making by simply comparing standardized test results. Test results showed no significant
change in reading and math scores but provided evidence that "increased school site
discretion could improve student performance. Though no improvements in test scores
were noted, improvements in attendance and dropout rates might reasonably be expected
to translate into higher achievement over the longer run" (p. 26).

In December, 1988 the Illinois Legislature passed the Chicago School Reform
Act. According to Bryk and Rollow (1992), the Act promoted three distinct bases of
power. This legislation gave parents and community members specific powers to not
only hire and fire principals but to approve the budget and school improvement plan
through the local school councils. Principals were given more power over their budgets,
physical facilities, and personnel. Principals were encouraged to use resources to solve
site problems. This legislation also gave teachers a voice in principal selection and
retention by having two seats on the local school councils. Teachers also had advisory
responsibilities through a professional personnel advisory committee structure.

Bryk and Rollow's (1992) study of the Chicago schools' experience drew three
conclusions. First, social resources greatly facilitated initial efforts at school reform.
Second, the transition from autocratic and bureaucratic action to democratic forms of
governance places special demands on school leadership. This was highlighted as the
importance of school leadership in promoting change. Third, there was a need for
sustained, comprehensive external support for restructuring and reform.

Wohlstetter, Smyer, and Mohrman (1994) first used the high involvement
framework to assess the successes of shared decision making in the United States and
Canada. Their study hypothesized that participants in shared decision making, not only
needed to be empowered, they also needed training to acquire the knowledge and skills
necessary for creating a high performance organization. They also maintained that participants needed access to information about the performance of the organization and they needed to be rewarded for their efforts. The study compared shared decision making schools that were perceived as actively restructuring to schools that were perceived as struggling. The study revealed that schools that were “introducing significant change in the teaching and learning process had invested more heavily in the development of both team process skills and instructional staff development” (p. 283). These schools also had more avenues for sharing information with multiple stakeholders. In addition, they had more mechanisms for participation in shared decision making, and a greater percentage of faculty involved in shared decision making.

Based on the utility of Wohlstetter, Smyer, and Mohrman’s study, Odden and Odden (1994) conducted a similar study to assess school-based management, or local management of schools, in Victoria, Australia. Their study revealed that schools that had changed their curriculum program to focus on creating thinking and problem solving expertise had many of the key elements included in the high involvement framework. Each school had substantial power, knowledge, information, and rewards. These schools were using their resources to restructure the school’s operation and to implement new curriculum programs.

Robertson, Wohlstetter, and Mohrman (1994) conducted another study in 17 schools using the precepts of the high involvement framework. They also embraced the constructs of effective schools research and the findings of Odden and Odden (1994) to add instructional guidance system, leadership, and resources to the environmental climate indicators. They also accounted for the empirical research of others to develop the
instructional delivery models' criteria (see Bacharach, 1990; Clune, 1993; Elmore, 1990; Murphy & Hallinger, 1993; Rowan, 1990; & Smith & O'Day, 1991). The instructional models were educating all students, integrated approaches, the use of technology, and teaching for understanding. This study was conducted to determine whether a relationship existed among the four instructional delivery models and the environmental indicators. They posited that schools that had implemented more of the four instructional goals would have a greater number of the environmental characteristics present. The results of the study indicated that among the seven environmental indicators "information, instructional guidance and leadership were the most strongly intercorrelated with the other variables and with each other" (p. 15). Information, instructional guidance and leadership were correlated most strongly with three of the four instructional delivery models: teaching for understanding, educating all students, and integrated approaches. This investigation concluded that the data as a whole provided considerable support for the primary hypothesis of their study.

Potential Perils

Although the literature indicated the overall positive potential of shared decision making, there was a negative side as well. Robertson (1994) maintained that simply allowing individuals to make more decisions would not increase student achievement or improve the teaching/learning environment. Jeffery (1994) observed that shared decision making was complicated by another factor. He argued that "if the people in the organization do not have an underlying belief that shared decision-making is the way to do business, only superficial activities will occur" (p. 90). Kwikkel (1994) similarly concluded that asking faculty to participate in decisions over trivial matters will do little
that substantively enhanced school-improvement efforts. Hageman (1994) elaborated on the problem of trivialities by suggesting if shared decision making "agendas mirror the beans, buses, and budgets’ agendas of the past, or repeatedly focused on student behavior, then the school does not value learning and instruction enough" (p. 56).

Another complicating element was power. Jeffery (1994) contended that when staff perceive they were getting power so someone else would be rendered powerless, bureaucratic mentality had not been eliminated. Finnessy (1994) expressed this sentiment another way, "care must be taken not to replace one bureaucratic system with another" (p. 69). Another power factor was the tension produced in organizations trying to reallocate power. This reallocation created a multitude of problems as individuals were moved to redefine their roles and change procedures (Sarason, 1994). There was also the risk that as Fullan (1993a) predicted that shared decision making would transfer the inherent dark side of power in organizations directly to the site level.

Decentralized solutions like shared decision making can fail for other reasons. For example, responsibility for one's freedom can be frightening. Glickman (1993) observed that schools have built cultures that have conditioned school people to depend on external authorities. Shared decision making could also display characteristics that did not necessarily lead to a healthy productive climate. Wrzeski (1994) described how non-productive characteristics were exhibited in shared decision making as follows:

1. an end in itself;
2. a means to protect "turf" and to maintain the familiar status quo;
3. a sounding board for special interest groups;
4. a means to deal with trivial issues rather than substantive reform efforts; and,

5. a means that settles for short-term goals.

Robertson, Wohlstetter, and Mohrman (1994) also concluded that as a form of governance, shared decision making in and of itself would not generate improvement in student outcomes. Instead, it was simply a means through which school-site decision makers implemented reforms that improved school performance and student learning. Even assuming that shared decision making was used as an effective form of governance through which multiple stakeholders influenced school decisions, there was no guarantee that school improvements would be initiated or implemented.

Many concurred with Hageman (1994) that school climate was the key to the success of shared decision making’s performance. He stressed the importance of climate change to the success of shared decision making concluding that consensus was obtainable only when the climate was understood and focused on school improvement.

School Climate

The research of O’Day, Goertz, and Floden (1995) concluded that “teachers’ practice is shaped in part by the contexts in which they work and learn” (p. 3). The data from their study indicated that school climate has the “greatest influence on teachers’ capacity and practice” (p. 3). They advocated the consideration of “the many factors that interact to determine educational capacity” (p. 1).

Kelly (1980) noted that because individuals and groups differed in their values and perceptions of what was valuable and meaningful, they also differed in their descriptions of which climate conditions or outcomes were important. Bedford (1986)
defined school climate as the combination of instructional leadership, environment, expectations for student achievement, school-wide instructional goals and objectives, classroom practices, monitoring student progress, and school-community relations. Howard (1974) referred to climate as the aggregate of social and cultural conditions which influenced individual behavior in the school. In other words, climate consisted of forces to which the school staff responded. Weiss (1995) defined climate as the environment that shaped participants interpretation of interests, ideologies, and information. Climate also involved the structure and the operating procedures of the school. As such, climate was molded by rules, access to information, and norms-appropriate behavior.

Akin (1995) described a healthy, positive climate as supporting opportunities for teachers to learn, a common sense of purpose articulated in the school's vision and goals, and assurance of organization resources, including time for dialogue about substantive issues. According to Louis and Miles (1990), an organization with a positive, healthy climate had the ability to promote individual and group change programs. A series of studies conducted by the Rand Corporation revealed the importance of organizational climate to the implementation of innovations. These studies concluded that the general quality of a school's organizational climate influenced the implementation of specific programs and projects (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977). This data coupled with the recognition that a school's climate was subject to alterations (Rosenholtz, 1989), frequently make the school's organizational climate the objective of staff development programs for restructuring and systemic reform (Hopkins, 1990).
A review of literature on school climate by Lindelow and Mazzarella (1985) indicated that there was no universal consensus on a precise definition of school climate. However, there was agreement on four issues. First, there was a distinct climate in all schools and districts. Second, school climate reflected movement on a continuum from positive to negative or healthy or unhealthy or good or bad. Third, many climate factors were found to be related to school effectiveness. Fourth, the nature of the climate affected many types of student and staff outcomes.

A large body of literature focused on the feeling (or atmosphere) aspect of climate or the satisfaction dimension. According to Lindelow and Mazzarella (1985), much of the research on school climate was concentrated on the social view of the school. Halpin and Croft (1962) defined school climate as the organizational personality of a school.

To many, climate was more than high morale or good feelings, it must also be defined in terms of outcomes and increased achievement—defined as the productivity component. Brookover, Beady, Flood, Schweitzer, and Wisenbaker (1979) indicated that the learning climate of a school was determined by its effectiveness in producing the desired learning outcomes. For Squires, Huitt, and Segara (1983), climate consisted of an emphasis on academics, an orderly environment, and expectations for success.

There was also a global view of school climate. This perspective used both the productivity and satisfaction components as well as the interaction of the two to define climate. For Lindelow and Mazzarella (1985) organizational climates were the products of every aspect of the organization, especially the patterns of interaction and communication among the members of the organization.
Environmental Indicators

The school climate's environment indicators were leadership, instructional guidance system, resources, knowledge, information, rewards, and power. The interactive nature of the multiple correlates (Katz, 1991) referred to here as the environmental indicators made it difficult to review one indicator singularly without simultaneously integrating the other environmental indicators. Therefore, the environmental indicators of a school's climate were viewed as interrelated strands.

Leadership

If restructuring and systemic reform were to succeed, leadership had to be present (Barkley & Castle, 1993). Many research studies and experts on leadership and reform attempted to answer the question, what constitutes effective leadership for restructuring and systemic reform? For many, including Sarason (1990), Wise (1989), and Johnson (1990), the traditional hierarchical structure was viewed as an inadequate paradigm for the changes demanded by restructuring and systemic reform.

Beers (1984), Guthrie (1986), Herman (1989a), Marburger (1985), Prasch (1984), and Spear (1983) supported the idea of principal as leader, integrator, and the one individual most capable of promoting change in a school. Etheridge's (1990) ideal principal had a well-defined view of what needed to be done to improve the school and actively sought input from others. The principal solicited input with the understanding and acceptance that his/her point of view may not always prevail. In other words, there was a balance between the leader departing from a personal vision for a larger consensus.

Leadership as conceptualized by Burns (1978), Bennis and Nanus (1985), Peters and Waterman (1982), Sergiovanni (1989), DePree (1989), Senge (19990), and Rose
Conley (1993) described relational behavior as power through rather than over others to create conditions in the school for all personnel to work together to achieve valued outcomes. Patterson (1993) defined leading an organization as a relational process of influencing others to achieve mutually agreed upon purposes for the organization. Depree (1989, see Adamo, 1993) described this as a relationship based on shared commitment to ideas, to issues, to values, to goals, and to management processes. This definition and description were provided with the assumption that relationships had been built and that the organization’s goals were supported by everyone involved and everyone in turn supported those who were at any time leading the organization toward the goals. Based on this assumption, roles were not fixed and leaders became followers and followers became leaders. This concept of leadership aligns with the theory of Bennis and Nanus (1985) which described a leader as committing people to action, converting followers into leaders, and possibly converting leaders into change agents.

Sergiovanni (1990) in his discussion of emergent leadership for restructuring and systemic reform described emergent leadership as the ability to “build common purposes, create vision, create a leadership team, provide opportunities for teachers to become leaders, and develop collegiality as a value, which would be shared as teachers, parents, and students were recognized as partners” (p. 26). However, Sergiovanni (1989) emphasized that traditional and emergent leadership were not mutually exclusive and were frequently practiced at the same time by the same person.

Weaver (1989) identified five main functions of leadership. These functions included defining the school mission, promoting a positive school climate, assessing
instructional programs, and working collaboratively with other professionals. Prager (1993) suggested that the function of collaboration would not necessarily lead to improved student learning. Prager advocated the need for clear tangible goals that directed the empowering process toward specific instructional goals.

Herman (1989a) identified the ideal leader in shared decision making as the "master planner" (p. 26). This leader involved stakeholders in planning and developing through consensuses a vision for the future, scanning external and internal information, allocating resources to implement the plan, monitoring structures, and continuously assessing the objectives, goals, mission and vision. Blase and Blase (1994) concurred with this view. Their research indicated that shared decision making required the principal to plan. Effective shared decision making meant the principal had to provide resources, including time, for staff development and collaboration. Conley and Goldman (1994) not only saw the need for principals to overcome resource restraints but coordinate all resources in order to reach the organization's goals.

Research had determined that principals' actions significantly affect the behavior, thinking, and attitudes of teachers (Blase & Blase, 1994). Smyle's (1992) study indicated that the teacher-principal relationship exerted significant influence on teachers' willingness to participate in restructuring and systemic reform and efforts. Jochim's (1995) study suggested that the ability to cause change was a necessary role of principals in the effective schools.

Others have attempted to determine what leadership behaviors and strategies build relationships and create support for restructuring and systemic reform. A study by Blase
and Blase (1994) suggested that principals needed to exhibit behavior that was supportive, facilitative, and trusting. These behaviors included the following:

1. Supporting teacher experimentation and innovation, granting professional autonomy, and viewing failure as an opportunity to learn.

2. Modeling professional behavior, especially by exhibiting caring, optimism, honesty, friendliness, and enthusiasm.

3. Encouraging risk taking and minimizing threats for constraints on teacher freedom and growth.

4. Praising teachers and using symbolic rewards.

Principals who were successful at shared decision making demonstrated a remarkable ability to build and maintain trust among their staff. They listened to others with respect, were models of trust themselves, helped others communicate effectively, celebrated experimentation, supported risk, and exhibited personal integrity (Blase & Blase, 1994).

Blase and Blase (1994) also found that successful principals encouraged teachers to teach one another. These principals believed classroom action research enabled teachers to gain skills and expertise that benefitted their colleagues. The result was that teachers were encouraged to provide better programs for students and to upgrade their own skills.

The relational-building strategies recognized in the Blase and Blase study (1994) were also identified in other research. For example, Wenzel (1994) identified creating a school climate where others were willing not only to take risks and to make mistakes but to view mistakes as important learning experiences. Wenzel’s study also identified the importance of listening and communicating across organizational boundaries and in every
segment of the community, respecting diversity, managing conflict, and nurturing others as leaders. Conley and Goldman (1994) identified the ability to manage conflict and create communication networks as key strategies. Nolte (1994) generalized the changes in leadership strategies from a centralized organization leadership to a decentralized organization as managing to facilitating, directing to empowering, tasks oriented to people centered, and an individual decision maker to a collaborative decision maker. Gardner (1991) referred to a cross set of skills and knowledge vital for leadership. In addition to skills in conflict resolution, mediation, compromise, coalition building, networking for linkage to get things done, and trust building, he also identified systems knowledge, institutional and community building, flexibility, motivating, and managing change.

Instructional guidance system

Seriovanni (1994) observed that firmly held core values permeated every aspect of the school organization. Rosenholtz (1989) similarly argued that the hallmark of any successful organization was a shared sense among its members about what they were trying to accomplish. Conley (1993) reminded educators that as they considered strategies for increasing stakeholder participation in decision making, the first question they needed to address was: why are we doing this? As mentioned by other writers, Conley (1993) emphasized that shared decision making has to focus on important issues. Otherwise, the benefits of group decision making were largely wasted. This circumstance meant that educators had to know what they were supposed to achieve and how it was to be measured (O’Neil, 1996). Teddlie (1994) similarly concluded that effective schools were those that had reached a consensus in their school community on the school’s mission and goals.
Weens (1993), Akin (1994), and Scheidler (1994) determined that a commonly shared vision was an important factor in bringing about successful restructuring through shared decision making. They also found a positive relationship between stakeholders' involvement in the vision building and the strength of support and commitment for the vision and restructuring. Scheidler (1994) reached the same conclusion after a school without an instructional guidance system made no move to change after the implementation of shared decision making. Scheidler observed "that an effort to change must have a stated new outcome" (p. 377). Therefore, without clear goals and good measures of them, it was impossible to be productive (Ravitch, 1995).

Guskey and Peterson (1996) warned against shared decision making becoming a goal in itself. They agreed with Herman's (1989a) contention that the success of shared decision making hinged on the planning process. Before engaging in shared decision making, a school must identify pertinent issues and have serious discussions about desired goals. Herman (1989c) reminded educators of the need to scan for relevant data—both internal and external. He defined internal data as student statistics, student achievement, school climate, financial resources, and human resources. External data would include demographics, government financing, laws, and prevalent attitudes. This kind of information provided a comprehensive data base for use in planning (Chorewycz, 1994).

O'Neil (1996) also reminded educators to plan within the district's overall priorities and curriculum framework. Focused planning was necessary to make sure that there was an alignment and coordination of the district vision and the school's vision of
it. Chorewycz’s (1994) study verified the need for coordination of a coherent vision and a long term direction for shared decision making at the district level.

Herman (1989b) delineated the steps in planning as developing a vision, developing a mission statement, creating strategic goals and objectives, and developing an action plan. Gleason and Donohue (1996) included an additional step in the planning process which required a regularly scheduled school assessment that would provide the school with the opportunity to revise the plan and strategies as needed. A phased planning process would enable the schools to decide what the indicators of improvement would be. The focus for improvement would be on enhancing the teaching/learning process for the welfare of all students (Wagner, 1996; Gleason & Donohue, 1996).

Praeger (1993) advised that goals needed to center on student outcomes—beginning with a mission statement and curricula content goals.

The productive use of educational resources must be focused on results (Odden & Clune, 1995). Data on schools’ resources—money, staffing, and time— including assessment of new revenue sources and the allocation (or reallocation) of those resources was important to meet instructional guidance system’s goals (Ponder & Holmes, 1992). The literature on instructional guidance system’s goals and resources merge in the research of Ravitch (1995) and the Committee for Economic Development (1994) in which the alignment of resources to the school’s instructional guidance system to improve the teaching/learning process produced higher educational performance.

**Resources**

The absence of adequate instructional resources was identified as a serious problem that impeded reform (Shields, Corcoran, & Zucker, 1994) and tended to
demoralize and frustrate teachers (Bacharach & Bamberger, 1995; Corcoran, 1995a; Corcoran, Walker, & White, 1988). Sykes (1996) agreed the “uncertainties of reform are multiplied by the lack of supporting resources” (p. 467). Corcoran and Goertz (1995) noted the lack of resources, including textbooks, to meet standards and curriculum, especially in secondary math and science. Corcoran and Goertz (1995) speculated that “good materials might help diffuse good practice” (p. 30).

Barth (1989) reminded educators that shared decision making required teachers to have adequate resources. Chorewyca’s (1994) study identified lack of training and inadequate resources as obstacles to shared decision making and reform. His study agreed with the Educational Research Service (1991) data as well as with Dutlweiler and Mutchler’s (1990) list of the eight barriers to shared decision making which included insufficient resources.

The Committee on Economic Development (1994) agreed that money did matter but only if schools were organized to use it effectively to promote achievement. Some of the recommendations made by the Committee on Economic Development to school boards and superintendents were:

1. Ensure that sufficient funds get to the classroom to improve learning - to meet goals.

2. Induce schools to reallocate expenditures for more effective uses within current real spending level.

3. Give individual schools greater control of resources.

4. Provide increases in real resources which are tied to progress toward agreed
upon achievement goals in a school investment plan or performance contract with the district.

5. Investigate potential sources of funding.

6. Developing investment plans would take the different costs into account for schools to educate students of different backgrounds and needs.

7. Add new functions and personnel only when eliminating those that are duplicative or no longer necessary.

Ferguson (1991) and Mumane (1983) found that teacher quality was associated with student achievement. Newmann and Wehlage (1995) pointed out that the hiring of teachers was one of the core activities of the school that had to be aligned and oriented toward the "vision of student learning" (p. 3). As a resource, the quality of employees, was an issue. For that reason, Kazal-Thresher (1993) advised schools to hire teachers with strong skills. Conley (1993) considered the reallocation of existing resources, including employees, as a part of any attempt to restructure.

Cambone’s (1995) research found that most teachers saw teaching as sacred. Therefore, any reform effort that intruded on teaching was likely to meet resistance and ultimately cause the entire effort to fail. Cambone contended that if new subsets were added to the existing time requirements for teachers, and no change was made in the overall design of how time was used in the schooling process, the change process stopped, either entirely or partly. In the same realm, McGuirk’s (1994) study found that adequate and appropriately scheduled time for meetings as well as the provision of funds to implement decisions was an important prerequisite in teachers’ willingness to participate on shared decision making teams. Cambone (1995) and Conley (1993) noted
that if teachers were going to learn new skills and ideas, they needed time to do it, and that time had to be in excess of the in-service hours routinely allotted.

Malen, Ogawa, and Kranze (1990) set forth guidelines for success with shared decision making based on their research of unsuccessful implementation efforts. Their guidelines recognized the requirement of human time and financial resources. They cautioned those implementing shared decision making to provide participants with the necessary resources in terms of time, funds, assistance and training. Recognizing that districts had difficulty linking personnel policies and professional development to standards, policy makers were also reminded that increased time, additional funding, and more staff development would not lead to changes in practices unless targeted and designed to meet teachers’ learning needs (Corcoran & Goertz, 1995).

Knowledge

Corcoran and Goertz (1995) pointed to studies that indicated teachers generally lacked the knowledge needed to make the changes envisioned by reformers. Nevertheless, policy makers proceeded with reforms without understanding what teachers needed to know to be able to implement the reform initiatives (see Goertz, Floden, & O’Day, 1995). In addition, professional development programs were of low quality generally, fragmented, and poorly linked to reforms (see Corcoran, 1995b; Goertz, Floden, O’Day, 1995: Little, 1993). Sykes (1996) also noted that conventional professional development was sorely inadequate due in part to meager resources and their ineffective deployment.

Chorewycz, (1994) concluded that “too many teachers and administrators lack the knowledge base necessary to make” (p. 58) decisions through shared decision making
about instruction and curriculum. Dutlweiler and Mutchler (1990) listed lack of skills and knowledge as one of the eight barriers to the implementation of shared decision making. Based on the summary of research on the relation between developing a school climate for restructuring and programmatic staff development efforts, Little (1982) concluded that there was a strong case for a causal relationship. She also made a case for collegiality and the principal’s role in establishing norms of collegiality and experimentation as a significant factor in effective staff development programs.

The assertions by Corcoran and Goerta (1995) were illustrated in Wohlstetter and Odden’s (1992) study of inadequate shared decision making implementation efforts. They found evidence for the need for an aggressive staff development process for shared decision making’s success. Wohlstetter (1995) emphasized this same strategy as a “focus on continuous improvement with school wide training in functional and process skills and in areas related to curriculum and instruction” (p. 23). Wohlstetter observed that in schools where shared decision making works, professional development was used strategically and was “deliberately tied to the school’s” instructional guidance system (p. 23).

Akin’s (1994) study came to the same conclusion. She found the implementation of an extensive staff development program was significant in the success of a school’s efforts to restructure. She also found that the successful in service programs included site-based staff development involving staff presenters in their areas of expertise. Adkin’s findings were in keeping with the literature and previous research (see Barth, 1989; Elmore, 1990; Hart, 1990). Louis and Miles (1990) proposed that restructuring schools required a model of staff development that was not merely mutually developed
but was building based and site specific. Akin's (1994) recommended, as Brandt (1991) had previously, that in order for new knowledge to be introduced in a school, a plan had to be developed which guided the change gradually over time.

McGuirk (1994) found that appropriate training was one of the conditions related to teachers' willingness to participate on shared decision teams. Her data indicated that teachers saw a need for appropriate training not only in group processes, but particularly in decision areas such as budget and personnel. Scheidler's (1994) study also indicated that staff development had to be linked to the teacher's work experience in such a way as to involve teachers in restructuring. Scheidler (1994) concluded that:

for a major change, professional development must be viewed in a new light. If teachers work from their own knowledge, based on previous practice, as seen here, investment in new teacher knowledge must be a high priority. Financial and professional resource allocation must be directed to this investment (p. 382).

Lawler, Mohrman, and Mohrman (1992) viewed knowledge and information as essential resources for employees who were empowered to make decisions. Weiss (1995) reminded educators that in order for people to make sense of the current state of affairs, they had to have a broad range of knowledge and information.

Information

Mohrman and Wohlstetter (1994) contended that schools "must have access to information about the school and its performance" (p. 178). Chorewyz's (1994) study came to the same conclusion-namely the success of shared decision making requires an excellent communication system that provided the stakeholders with information to make decisions. Effective decisions were informed decisions (Wohlstetter & Smyer, 1994).
Wohlstetter (1995) described information for shared decision making's success as "a well-developed system for sharing school-related information with a broad range of constituents" (p. 24). The description incorporated the concept of multiple communication mechanisms or information channels as the means to the end product-information. It was important that communication had a multidirectional flow—from multiple sources to multiple recipients simultaneously. As an example, Wohlstetter stressed that the information from central office needed not only to flow into the school but needed to circulate through the school and flow from the school to the community. Murphy (1989) advocated an information system in which data from the schools informed district policies and data from the district assisted in reforming the school-site practices.

Wohlstetter (1995) suggested that information about the school's performance was not the only type of information that was regularly disseminated in successful shared decision making schools. Information about innovations in other schools, districts, and states that fostered new practices and learning among teachers was also distributed. Innovative information circulated not only within a school but among schools through formal and informal networks (Mohrman & Wohlstetter, 1994). Chorewycz (1994) indicated the importance of the principal as the linkage agent for this type of information and communication system. Hume (1993) also emphasized the role of the principal as not only empowering but providing information and knowledge by strategies such as encouraging the sharing of instructional strategies, innovative ideas, materials and texts.

Successful schools also gathered data from the community. Many schools "conducted annual parent and community surveys and used the results to help set priorities for the following year" (Wohlstetter, 1995, p. 24). Once again, the principal's
role was cited as significant as a conduit of information for the school. Wohlstetter (1995) observed that principals in schools where shared decision making functioned successfully attended many meetings where numerous external constituents were present.

**Rewards**

Odden and Clune (1995) suggested that shared decision making and other reform initiatives would be strengthened with the adoption of new compensation strategies. These strategies included setting aside money to reward exceptional performance by faculty at the school level. They based their argument on the rationale that a move to decentralized school management also brought into question the single salary schedule, the largest, formal reward and incentive element of the current system.

Lawler’s (1990) work also emphasized a redesigned compensation structure. He suggested a compensation system which was aligned with strategic initiatives of standards based on reform and drawing on new approaches to compensation in other organizations. He suggested that such a compensation structure would serve as an incentive for developing knowledge and skills needed to teach new curriculum standards.

Odden and Clune (1995) viewed a new compensation structure as a means of aligning investments in professional development with the largest expenditure of funds. They also cited the need of acquiring and using the expertise necessary to engage in effective school management and producing improvements in educational results.

These arguments were similar to the observation of Wohlstetter (1995). She noted that:

the argument that intrinsic rewards, such as opportunities to innovate and to be effective with students, are sufficient to motivate and reinforce teachers for engaging
in SBM over the long haul may be too optimistic. The use of extrinsic rewards, in combination with other incentives, might help reduce the fatigue factor and sustain the reform effort. (p. 24)

**Power**

The decentralization of power and the related questions of how much power to transfer and who would exercise it were among the central shared decision making policy issues (Wohlstetter & Mohrman, 1994). The most common model of shared decision making was based on the concept of using shared decision making as a means of giving more power to classroom teachers. Shared decision making was seen as synonymous with empowering teachers since it elevated their influence to higher levels (Wohlstetter, 1993). Using this model, David (1988) defined shared decision making as school-level autonomy with participatory decision-making within the school through the establishment of a formal decision-making council. Another model of shared decision making expanded empowerment beyond teachers on the council to representatives of various other constituencies such as non-instructional staff, parents, and students (Sidener, 1994). Both shared decision making strategies were meant to empower teachers and others by giving them some authority and responsibility for budget, personnel, and programs at the site. (Levine & Eubank, 1992). Newmann (1991) viewed these strategies for restructuring as trying to:

- change the authority and power of various constituencies (e.g., employees, parents, students) involved in school governance;
- to develop new procedures for making decisions about staff, budget, and curriculum, to create new mechanisms that hold
staff and schools accountable; and to sustain a continuous process of organizational
change. (p. 7)

Wohlstetter and Odden (1992) argued that without decentralization of real power
"predicated on district support" (p. 537) to make decisions geared toward specific areas
such as curriculum and teaching at the school level, shared decision making had little
chance for success.

This argument was supported by Sidener's (1995) study that showed that a
meaningful redistribution of power had not occurred. Although shared decision making
had led to more collaborative work patterns, stressful conditions such as the loss of
planning time (resource) in the school day and new leadership at the district and school
level had a negative impact on teacher collaboration. Moreover, shared decision making
participants had not used the process to address concerns related to teaching and learning.
Sidener concluded that (1) implementation of a shared decision making initiative was not
in and of itself a redistribution of power; (2) new roles had to be openly discussed (3)
shared decision making was a vulnerable process that had to be strongly supported by the
principal and superintendent; (4) district staff had to shift from generating initiatives to
supporting the schools' initiatives and providing continuous opportunities for professional
growth; and (5) leadership, goals and structure were needed to direct school site
participants to address issues of professional practice. Policy makers, however, needed to
tread a fine line between providing structure and allowing participants to discover the
shared decision making process for themselves.

Nolte's (1994) study of leadership and power at six schools operating under
shared decision making in Virginia found that building principals retained the ultimate
power for decisions in their schools, including the day-to-day operations. Principals modified their leadership styles somewhat to accommodate collaborative decision making, but fostered the vision and direction of their schools as they engaged communication, facilitation, and empowerment. Nolte concluded that school councils really did not make authoritative decisions; they made recommendations for improvement. In the areas of curriculum and teaching, the work of the school council resulted primarily in enhancement of already existing programs.

Even when given real power and district support, shared decision making faced other power problems. As illustrated in Wohlstetter and Mohrman’s (1994) research, “struggling schools got bogged down in establishing power relationships” (p. 2). A study conducted by Wilkie (1993) noted that shared decision making councils display political behavior including the formation of interest groups with goals and roles organized according to power alignments. He suggested that shared decision making initiatives had to recognize that systemic school reform required planning, goal setting, decision making, conflict resolution, and evaluation.

Wohlstetter and Mohrman (1994) concluded that power vested in one group was the catalyst for shared decision making councils to operate with political agendas. Their research showed that schools that were successfully restructuring were characterized by multiple, teacher-led decision-making teams “that cut across the school both horizontally and vertically to involve all teachers in the decision-making process” (p. 3). These teams also “fostered high levels of information sharing and interaction around issues related to school performance” (p. 3). To further elevate the political context of shared decision making councils, a study of ten Washington state school districts conducted by Marsillo...
resulted in a recommendation that support and trust needed to accompany relinquished power. Marsillo also encouraged principals and superintendents to delegate empowering tasks that were relevant and motivational. In other words, decentralization of power to schools did not automatically lead to the effective utilization of that power. Therefore, Wohlstetter and Mohrman (1994) concluded that authority had to be accompanied by a principal who facilitated participation, a school faculty with few divisive factions, and a general desire of the stakeholders for change.

Some analysts predicted the results of the movements for restructuring through shared decision making would mirror the indistinguishable changes in educational practices of the past. Mell and Mell (1990) and Roemer (1991) suggested that the failure of reform initiatives was due to lack of recognition that the process of implementing reforms over time was as crucial as the proposed reforms themselves. Sarason (1990) argued that the primary reason for continued reform failures was due to the fact that the reformers ignored the findings associated with preceding change efforts. Sarason contended that unless reformers carefully analyze the complex process of change and the surrounding organizational factors that affect its success, reform efforts are doomed for failure.

Sarason (1990) further suggested that the three major obstacles to educational change were the lack of understanding by policy makers and educators that (1) any change in a school affects all areas of life surrounding it, (2) change cannot be managed as a separate process or program in a school, and (3) change confronts the intractability of the school. Fullan (1982) noted that when intractability came in to conflict with
advocation for change, fighting for or against the change became the product as an end in itself. Fullan’s view was congruent with Schlecty’s (1990) observation that individuals were both initiators and resisters of change. Timar (1989) offered a similar perspective on change:

Creating a policy climate capable of fostering an integrated and organizationally coherent response to reform or restructuring requires more than making such marginal changes as adding new programs or reshuffling organizational responsibilities. Such tinkering may actually have a negative effect on schools by embroiling them in conflicts that further fragment operations and diffuse energy. An integrated response to restructuring is not likely to occur without a basic definition of roles and responsibilities of just about every party connected with schools: teachers, administrators, professional organizations, policy makers, parents, students, and colleges and universities (p. 274).

In regard to change, Akin (1994) referred to Henshaw’s (1987) contention that resistance to change would be eliminated or reduced when change was presented in a manner that was similar to that which the participants knew and understood.

Mohrman and Wohlstetter (1994) agreed with Marsh (1994) that shared decision making was not an isolated product, program, or practice. It was a complex organizational change which had to be set in the context of large-scale system redesign. Mohrman and Wohlstetter (1994) concluded that since schools are organizations, it is not surprising that the principles of change would be similar in schools and other kinds of organizations (p. 255). This argument was parallel with Sarason’s (1990) contention that schools were not unusual in their complexity or in their organizational characteristics.
from other organizations. Therefore, policy makers and educators wanting to restructure through shared decision making needed to identify successful change models in other contexts than education that would be useful in delineating “best practices.”

Educational Context

Prince (1989) and Joyce (1993) identified the organizational structure of schools as “loosely coupled.” In loosely coupled organizations, elements in the organization are associated, but with relatively few functions connecting them. Joyce, Hersh and McKibbin (1983) argued that it was difficult for anyone on any level of a loosely coupled organization to generate and maintain an innovative change. They held that new innovations were simply added to the existing structure of the system. The solution was for schools to tighten the loose coupling through restructuring in order to improve.

Lehming and Kane (1981, see Joyce, Hersh, & McKibbin, 1983) described how the organizational context limits or extends the effectiveness of innovations and the capabilities for collaboration in a change effort. Forces work in organizations, as well as within individuals, to stabilize patterns of behavior and keep those behaviors within an acceptable range. These forces prevent changes that might endanger some essential aspect of life in the organization. For example, teachers have considerable autonomy in their own classrooms. Although teachers complain about working in relative isolation, their actions frequently result in the protection of predictable, well-defined roles (Joyce, Hersh, & McKibbin, 1983).

Nadler, Gerstein, and Shaw (1992) argued that organizations can be architected for more effective mission accomplishment. Prince (1989) agreed that organizations can be changed but maintains that collective activity has to become the norm, working for the
whole organization has to be reinforced before the forces will cease to operate against innovations. Prince (1989) used the term “systemic” to describe the importance of the day-to-day operations in the schools that are characterized by repetitious systematic pattern of activities which were comfortable. He proposed collective activity to change the organization must be directed to the systemic patterns of the organization.

Murphy (1990) was also an advocate of collective activity because it decreased isolation and increased cooperative planning in school-wide and district planning. He suggested that collective activity was more viable now than in the past because schools were moving away from “loosely coupled” to a more tightly defined structure. His argument was based on the emerging characteristics of a tighter organization such as curriculum alignment which directed attention to specific classroom instructional objectives, a focus on students outcomes, and more clearly inked school-wide goals.

Process

Marsh (1994) referred to change as a holistic journey. Holistic was defined as “the need for a shared view of what students know and are able to do, and to how the many dimensions of schooling (including curriculum, instruction, assessment, and organizational structures) need to be integrated and directed toward reaching the new student outcomes” (p. 223).

Fullan (1982) argued that the failure of educators and policy makers’ to provide assessment, planning, communication, and time to look at the change objectively in relation to its values, goals and outcomes had resulted in the rhetoric for change differing from the reality of change. The same reasoning was used by Schlecty (1990) in his conclusion that in order to reduce resistance for the change, the change process or system
has to be developed for and by the school. Schlecty proposed the necessity for five steps to occur in order to create a change process or system in a school. The five steps were: (1) conceptualizing the nature of the change; (2) marketing the change with those not involved in the conceptualizing process; (3) developing the support and leadership for the change; (4) implementing the change, based on motivation; and (5) servicing and supporting the change through training and resources. This reasoning was also supported by Chris Argyris (1982) who emphasized the following elements for successful change: (1) providing enough time, (2) viewing cooperation as a necessity, (3) approaching the organization as a system, (4) phasing in the change for individuals, groups, and the organization, (5) maintaining awareness of the intellectual and emotional content throughout the change process, and (6) providing variation in programs as needs were identified.

The extant literature on organizational change recognized that the interconnected conditions that shape an organization's climate were only changed by a systemic redesign of the entire set of conditions (Mohrman & Wohlstetter, 1994). A redesign of the climate required not only sufficient time to establish new rules, define new roles, and balance new relationships (Aronstein, Marlow, & Desilets, 1990), but time and effort sufficient to develop a climate that supported systemic change (Wittmer, 1994).

Dynamics of Transformation.

Tichy and Devanna (1986) proposed a framework that supported organizational transformation. Their work incorporated two psychologically-based individual change models, originally conceptualized by Bridges (1980) which were applied to large-scale organizational change. Their model recognized that change was accomplished by
individuals, not organizations. This model was congruent with Hord, Rutherford, Huling-Austin, and Hall's (1987) stance that change is personal. The model also recognized that individuals in the organization can be in different stages at any given time during the change cycle. Based on this rationale, the challenge for the managers of an organization's change was to not only conceive change processes and interventions that addressed the inevitable multiple simultaneous dynamics of change but to also manage the conflict that was also an integral part of managing the dynamics of change" (Mohrman, 1994, p. 195).

Tichy and Devanna (1986) delineated three stages in the transformation of an organization. Stage one of the cycle was recognizing the need for change. The rationale for stage one was that any change had to begin with an individual's ability to see and understand the need for change. Without this beginning, an individual would not be willing to adopt new patterns of behavior. This was similar to Lewin's (1951) dynamic framework for change which recognized the first stage of change was the release or discarding of old patterns of behavior. Mohrman (1994) argued that this was the stage of change which provoked the most resistance. Mohrman reminded leaders to allow individuals and groups to challenge the need for change during this stage. Mohrman also reminded proponents for change that this stage was frustrating due to the negativism, but proponents must avoid the temptation to curtail the exchange or debate.

Tichy and Devanna's (1986) stage one was a pivotal step to stage two- creating a new vision. The second stage not only created the vision but revealed differences in where the organization was, where it wanted to be, and defined the needed "changes in practice, process, and structure" (Mohrman, 1994, p. 193). The second stage was "where the positive energy begins to emerge" (Mohrman, 1994, p. 194).
Tichy and Devanna’s (1986) stage three was the implementation and institutionalization of the change. Stage three was fragile. The consensus around the new order was weak. Consensus could evaporate quickly if leadership changed or organizational attention slipped away from the change focus on the desired ends. The third stage also included the continuation of managing the resistance to change until the status quo was redefined (Kanter, Stein, & Jick, 1992).

Mohrman (1994) conceptualized the first two stages of Tichy and Devanna’s three stage model of transformation as the foundation for design flexibility in a self designing organization. The premise was that “an organization cannot simply copy design solutions that have been found to work elsewhere” (p. 205). For that reason each organization has to go through its own learning and redesign process.

Design Flexibility.

O’Connell (1988) observed that a single educational change program has to be flexible enough to encompass the varying conditions and problems that public schools encounter. Rubin (1973) argued that change had to be approached rationally and with each school’s needs and circumstances carefully considered. Bancroft and Lezotte (1985) similarly concluded that improvement efforts needed to focus on individual schools, with the goals, training and support matched to the particular school. McLaughlin (1990b) and Elmore and McLaughlin (1988) observed that new programs created from outside the local school system or schools were difficult to implement unless the local educators tailored the program to meet local needs and circumstances. Fullan (1985) and others agreed that the uniqueness of an educational change program that was based on local
situations was a critical factor for success (Fullan, 1985; Clark, Otto & Astuto, 1984; Huberman & Miles, 1984).

Sarason (1990) cautioned educators and policy makers to recognize that all schools were not at the same level in their organizational development. He offered restructuring through shared decision making as an example. Some schools were more ready for shared decision making than others. In some schools, collaboration and communication structures were already in place for a variety of reasons. For example, the principals may have invited and supported faculty participation in school decisions. In other schools, teachers' involvement in educational decisions may have extended only to their individual classrooms, if that.

Fullan (1993b) further cautions policy makers not to mandate complex reform and restructuring changes, like shared decision making. He observed that such changes cannot be mandated because it was not possible to force teachers to either think differently or develop new skills. Under the conditions which surrounded a complex restructuring change such as shared decision making, the alternative that may work best was to develop a policy which allowed each school to design and create the internal conditions that could foster such a change. This capacity for self-design would give each school the opportunity to build a climate for teaching and learning that moved "beyond the traditional boundaries of shared power, in order to create the capacity within" the school to improve performance (Wohlstetter, Smyer, & Mohrman, 1994, p. 268).

Self-Designing Organizations

Mohrman (1994) posited that the most important phase of change for a self-designing organization was building the foundation. Mohrman further suggested that:
the foundation consists of determining the values toward which the organization will be redesigned, acquiring learning and awareness about organizational design principles and alternatives, and diagnosing the current organization to gain awareness of the gap between the way the organization currently functions and how it needs to function to successfully achieve its values, given its environmental and technical requirements. (p.205-206)

When the foundation was not laid, the change had no meaning for members of the organization, reducing the likelihood of successful implementation. Since the foundation stage included a shared understanding from an integrated perspective that included elements of teacher involvement, educational outcomes, and community involvement, failure to establish those understandings lead to conflict and disillusionment.

Mohrman and Cummings (1989) found that in the cases that they had studied, there was a tendency to skip the foundation stage. When organizations went directly to the design and implementation step without laying the foundation, the organization had to recycle to the beginning and lay the foundation.

The second stage of self-design involved the design elements of the organization. This was usually done by different teams redesigning different subsystems of the organization. Coordination between the various design processes was critical. It was at this stage that it became apparent as to whether an adequate foundation was laid (Mohrman, 1994).

The third phase was the careful design of the implementation process, including the support that was needed for organizational units and members to implement the change. Since an organization was rarely capable of completely defining the change or
the implementation process in advance, the organization had to learn as it proceeded through the process, which in turn required short-term and long-term assessments during the process. This process resulted in tailoring and reworking designs as the organization learned what was required to make the new approaches work and to more effectively achieve the organization's mission and goals (Mohrman, 1994).

Summary

The extant literature addressed the complex and challenging change processes and climates that support shared decision making as a mechanism of restructuring and systemic reform. The literature also demonstrated the need for school districts that were contemplating the implementation of shared decision making as a mechanism for restructuring and systemic reform to conduct an assessment of a school's climate by using a valid and reliable instrument to measure the degree to which the precepts supporting restructuring and reform were in place. The precepts were identified from the literature as the dimensions of capacity (environmental indicators and instructional delivery model variables). Therefore, the extant literature supports the development of a survey instrument which measures the extent to which the dimensions of capacity exist in a school. The literature related to the development of the instrument is presented in chapter III.
CHAPTER III

METHODOLOGY

This study’s first purpose was to develop an instrument based on the precepts of shared decision making as a restructuring mechanism for systemic reform. The study used the constructs of environmental indicators and instructional delivery models as the precepts. Collectively, these precepts were called “dimensions of capacity.” Secondly, this study administered the instrument at each school in the participating school district to assess the professional staff’s perception for the degree of each dimension of capacity as well as the degree to which the dimensions of capacity were inter-correlated.

The eleven dimensions of capacity consisted of seven environmental indicators and four instructional delivery models. The instructional delivery models examined in this study were educating all students, integrating approaches, using technology, and teaching for understanding. The environmental indicators examined in the study were leadership, instructional guidance system, resources, knowledge, information, rewards, and power. The dimensions of capacity were described earlier in Chapter II.

Herman, Morris, and Fitz-Gibon (1987) advocated the assessment of critical precepts and practices, such as dimensions of capacity prior to the development of a new policy or program. The selected methodology assumed the precepts of shared decision making as a restructuring mechanism for systemic reform existed to some degree at each school. Good and Scates (1954) proposed the use of research using a questionnaire format for the determination of current conditions. They suggested that this methodology
was essentially a quantitative description of the general characteristics of a group according to existing conditions. Therefore, a valid and reliable survey instrument was used to measure the professional staff’s perceptions (Fitz-Gibbon & Morris, 1987).

Research Questions

The following primary questions were addressed by the development of an instrument to measure the dimensions of capacity for shared decision making:

1. To what extent does the instrument demonstrate content, face and concurrent validity?
2. To what degree does the instrument demonstrate internal consistency, and test-retest reliability?

The following secondary research questions were addressed in this study by the administration of the developed survey instrument:

1. To what degree do professional staff perceive instructional delivery as focused on the differentiated needs of all students?
2. To what degree do professional staff perceive integrated approaches are being used for instructional delivery?
3. To what degree do professional staff perceive technology being used for instructional delivery?
4. To what degree do professional staff perceive instructional delivery being directed to problem solving and greater student understanding as opposed to acquisition of facts and the reproduction of knowledge?
5. To what degree do professional staff perceive the principal’s leadership for building a climate of change?
6. To what degree do professional staff perceive existing teaching and learning processes as oriented to the realization of the school’s stated vision, mission, and goals?

7. To what degree do professional staff perceive the school’s existing internal and external resources as adequate for the realization of the school’s stated vision, mission, and goals?

8. To what degree do professional staff perceive they participate in professional development activities as increasing their knowledge and use of innovative instructional delivery models, interpersonal skills, and teamwork?

9. To what degree do professional staff perceive information about the school’s performance is being disseminated to faculty, students, and community?

10. To what degree do professional staff perceive incentive structures as rewarding both individual and school performance?

11. To what degree do professional staff perceive power has been decentralized at the school?
   
   a.) Has the instructional council improved the instructional program?

   b.) Has the instructional council provided faculty input into the school’s decision-making process?

12. To what degree do professional staff roles influence the perception of dimensions of capacity?

13. To what degree are the dimensions of capacity inter-related?
Instrument Development Procedures

Generating Items

Items on the instrument were constructed to answer the research questions addressed in the study. Items were developed from an extensive review of the literature on the precepts of shared decision making as a restructuring mechanism for systemic reform and adapting previously used interview questions from qualitative research by Robertson, Wohlstetter, and Mohrman (1994) and Newmann and Wehlage (1995). In order to determine content validity, the instrument was critiqued by a panel of experts (Appendix M) that included teachers, principals, superintendents, and university professors. In addition to the initial review by a panel of experts, a copy of the preprospectus for this study and instrument were sent to Dr. Priscilla Wohlstetter, a recognized national expert on shared decision making as a restructuring mechanism for systemic reform, for her critique.

Pilot testing was used in an effort to obtain the content validity and reliability of the instrument. The piloting testing was also used to modify the items and format.

First Pilot

Reliability and validity were ensured in several ways. The instrument was administered at two schools in the southeastern United States. The first pilot school had 25 professional staff members and served a rural K-8 population. The other school consisted of 50 professional staff members of a middle school grades 6-8. The total pilot population from both schools was 75.

The responses from the 75 pilot participants were used to “conduct an item analysis as a means of increasing” reliability (Morris, Gibbon, & Lindheim, 1987, p.
Cronbach alpha coefficient for internal consistent reliability was calculated to assess intra-scale item cohesiveness. Data regarding the total inventory and each dimension including best and worst items were collected. A resulting coefficient above .60 represented good reliability and a coefficient above .80 indicated excellent reliability (Gibbon & Morris, 1987).

Based on the results of the first pilot of the survey, the instrument was revised by making specific changes to items in several of the dimensions. All data, including the results of the development of the instrument such as this first pilot study and the specific changes made as a result of the data are reported in Chapter IV.

Second Pilot

To continue to develop the instrument, a second pilot study for the revised instrument was conducted in three states using both public and private schools. The total sample consisted of 61 professional staff members. Once again, Cronbach alpha coefficient for internal consistent reliability was calculated to assess intra-scale item cohesiveness. Internal consistent reliability was determined for the total inventory and for each dimension of the revised instrument. In order to establish test-retest reliability, the revised instrument was administered twice, with a two-week interval between administrations, to the same group of instructional staff from the K-8 school that had participated in the first pilot study. The results of the second pilot study are also reported in Chapter IV.

Instrumentation

The final survey instrument consisted of five sections (see Appendix E). The following narrative explains each section of the survey:
Section I - This section was requested by the superintendent of the participating district as a self-evaluation. Because the research question concerning leadership pertained specifically to the principal’s leadership at each school, the eight items in this section were not a part of this study.

Sections II and III - These two sections consisted of 73 Likert-scale items that assessed the participants’ perceptions of the presence of each of the eleven dimensions of capacity. Respondents were asked to indicate their agreement with each statement on a 6-point scale. The scale value for all items was the following: strongly agree = 6, agree = 5, moderately agree = 4, moderately disagree = 3, disagree = 2, and strongly disagree = 1. Scale values for negatively-worded items were reversed. A brief description of each of the eleven dimensions of capacity with the number of items per scale follows:

**Educating all students**: an instructional delivery model which spanned across the full range of the ability spectrum giving every student the opportunity to learn through individualized instruction, non-graded classrooms, and ‘main streaming’ of students with special needs (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995; McDonnell, 1995). (9 items)

**Integrated approaches**: an instructional delivery model which used both internal integration of the curriculum such as team teaching and external integration through linkages to the community and community services (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995). (5 items)

**Use of technology**: an instructional delivery model used as a tool for application of practices in the workplace, integrative learning and production (Robertson, Wohlstetter, & Mohrman, 1994). (5 items)
Teaching for understanding: an instructional delivery model used to develop students' higher order thinking skills such as problem solving and creative work that illustrated understanding and application rather than memorization and reproduction of knowledge (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995). (5 items)

Leadership: the efforts of the principal to involve many individuals in the building of a climate for change to achieve the school's desired instructional direction (Robertson, Wohlstetter, & Mohrman, 1994; Short & Greer, 1997). (14 items)

Instructional guidance system: clear goals and vision established through the consensus of the school's faculty which was embodied in a shared instructional philosophy and improvement plan (Robertson, Wohlstetter, & Mohrman, 1994). (6 items)

Resources: not only the internal resources of money, staffing, and time but external funding and business partnership targeted to accomplishing the school's instructional guidance system (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995). (4 items)

Knowledge: the engagement of professional staff in professional development opportunities on a regular basis in a broad range of content areas, especially those areas related to participation in decision making and the process of school improvement as well as activities to enhance staff knowledge and skills in the areas of teaching and instruction (Robertson, Wohlstetter, & Mohrman, 1994). (5 items)

Information: a well-developed system for not only sharing a comprehensive data base about the school's performance and innovations in other schools with a broad range of constituents but also soliciting information from external and internal sources (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995). (8 items)
Rewards: a compensation system for staff behavior and school performance oriented toward achieving the school and district's goals (Robertson, Wohlstetter, & Mohrman, 1994; Newmann & Wehlage, 1995). (5 items)

Power: the decentralization of decision-making by empowering a broad range of school-level constituents to be involved in the school's decision-making process. How much power is shared at a school is demonstrated by the number of professional staff who have input into the school's decision-making process. (Robertson, Wohlstetter, & Mohrman, 1994). (11 items)

Section IV - This section consisted of six items to which the participants were asked to respond with a yes or no. These items included questions about the availability and use of technology for instruction, leadership for change and the education of all students. This section also included rank order items. Participants were asked to rank from 1 to 6 the person or groups most responsible for changes in the school over the past three years.

Section V - This section requested demographic information about the participant. Information included gender, ethnicity, years of experience, age, role, and prior service on the school's instructional council.

Description of the Study's Population

Based on the results from the pilot studies (reported in Chapter IV), the instrument was deemed reliable and valid for collecting the data in the school district under study. The participating school district served a small city in the southeastern United States. The district consisted of six schools - one high school, one middle school, and four elementary schools. The school district had a demonstrated history of academic
excellence. For example, the high school with a student population of 1,000 had more than 400 students over a ten-year period to score more than 700 on the math portion of the SAT. That was an average of approximately 40 per year or 4% of the student population. In recent years the city’s demographics had changed. That change reflected an increase in the number of minority students, students with special needs, and students identified as at risk. The district also experienced an increase of incidents involving inappropriate student behavior. For example, there had been a significant increase in vandalism.

The school system had 505 employees. The survey population, professional staff members at each school, consisted of 390 employees. The professional staff included administrators, classroom teachers, resource teachers, and instructional assistants at each school. Of the total study population, 4% were administrators, 53% were classroom teachers, 26% were resource teachers, and 17% were instructional assistants. In order to get meaningful data, two-thirds of the total survey population at each school needed to participate. Based on the original survey population number and number of variables to be examined, a meaningful sample from the entire district instructional staff population would have consisted of 261 (67%) respondents.

Data Collection

Data were collected simultaneously from the professional staff, including the school principal, at each school on a teacher’s records day. A teacher’s record day was a holiday for students. Because students were not in school, the records day provided professional staff members the opportunity to engage in professional activities such as staff development, staff meetings, and educational planning.
Prior to the collection of data, the principals were trained as assessors for collection of data. Training included a review and clarification of the informed consent cover letter for the members of the school’s professional staff that volunteered to participate. The informed consent letter contained an introductory statement which invited the professional staff to participate. The letter indicated that completion and return of the questionnaire would constitute permission to use the responses in the study. The statement made clear that declining to participate would not be held against the instructional staff member in any way. The informed consent cover letter also included an explanation of the study, the benefits of the data, and the guarantee that all responses would be anonymous, kept confidential, and that all questionnaires were identical (Appendix G).

The district office assembled the survey packets, confidential envelopes, and checklists for each school. The packets consisted of a cover consent letter, a scantron sheet, and a questionnaire. The materials supporting the collection of the data were delivered to the school the morning of teachers’ records day. Approximately an hour before the official close of the day, the professional staff was invited to participate in the study.

The principal at each school had the packets and number 2 pencils available at the door when the participants arrived. Because directions for participation and responding to the questionnaire were provided in each packet, it was not necessary to wait for all volunteer participants to arrive. The volunteer respondents began as soon as they picked up their packets and had read and understood the directions. The principals were available to answer any individual questions. There was no need for respondents to stay
any longer than it took to complete the survey. As the participants left, they placed their
scantron sheets, survey booklets, and pencils in the respectively marked envelopes and
boxes. The completed scantron sheets were sealed in an envelope marked confidential.
A central office administrator collected the sealed envelopes. The scantron sheets in each
school's sealed envelope were coded by school by the investigator.

Data Analysis

The computer program Statistical Package for the Social Sciences (SPSS) was
used to analyze the data (Nie, Hull, Jenkins, Steninbrenner, & Bent, 1995, version 6.1).
Internal consistency reliability was determined using Cronbach alpha for each dimension
and total inventory. After internal consistency reliability had been verified, the data were
tabulated and verified. The distribution of data was summarized in tables, frequencies,
and descriptive statistics. Descriptive statistics provided the frequency of responses,
measures of central tendency, and variability for each item. Descriptive statistics were
also used to summarize total scores for each dimension of capacity.

A comparison of schools' means and standard deviations for each dimension of
capacity were calculated. Pearson correlations were calculated to assess the degree to
which the eleven dimensions of capacity related to each other (Borg & Gall, 1989).

Summary

This chapter described how the instrument was developed and utilized in the
participating school district. The chapter explained how content validity, internal
consistency reliability, and test-retest reliability were determined prior to the collection of
data for the study. The reliability and validity results for the instrument are provided in
Chapter IV. Procedures used to answer the research questions were also described.
Specifically, the degree of the dimensions of capacity at each school and the degree to which the dimensions of capacity were inter-related. The results of the research questions are also provided in Chapter IV.
CHAPTER IV

REPORT OF DATA AND DATA ANALYSIS

There were two purposes for this study. First, a valid and reliable instrument was needed that measured the degree of the dimensions of capacity. Second, the dimensions of capacity in a specific school district needed to be assessed. Chapter IV describes the instrument's validity and reliability, demographic characteristics of the sample, and the sample's response to the instrument (i.e., research questions).

Validity and Reliability Results

Face validity was established by the inclusion of items delineated from an extensive review of the literature and adapting previously-used interview questions from qualitative research by Robertson, Wohlstetter, and Mohrman (1994) and Newmann and Wehlage (1995). The instrument was critiqued by a panel of experts that included teachers, principals, superintendents, and university professors. All of the experts were given a packet of materials containing the study’s research questions, definition of terms, and proposed survey items (Appendix A). Based on the experts' written responses to the survey items, the instrument was revised (Appendix B). A copy of the preprospectus for this study and a copy of the instrument were sent for critique to Dr. Priscilla Wohlstetter, a recognized national expert on shared decision making as a restructuring mechanism for systemic reform. She supported the content validity of the instrument (Appendix C).
First Pilot Study

The instrument was administered at two schools in the southeastern United States. The first pilot sample included 25 professional staff in a rural K-8 elementary school. The school had been selected several years ago as a state School of Excellence. The second school was specifically chosen for its school district's comparability to the district to be studied and its recent selection as a national Blue Ribbon middle school. The second pilot school was the only middle school in a city district. The city district had a total student population of 3,750. The middle school pilot sample was composed of 50 professional staff. The total pilot population from both schools was 75. Interviews were held with randomly selected participants at both pilot schools.

The responses from the 75 pilot participants were used to "conduct an item analysis as a means of increasing" reliability (Morris, Gibbon, & Lindheim, 1987, p. 116). Data regarding the total inventory and each dimension including best and worst items were collected. Internal consistency reliability was determined by Cronbach's alpha. Coefficients above .60 represented good reliability and coefficients above .80, excellent reliability (Gibbon & Morris, 1987).

The total inventory had a Cronbach alpha of .96. The dimensions of leadership, instructional guidance system, power, and information had a Cronbach alpha above .80. The dimensions of educating all students and use of technology had a Cronbach alpha above .60. Three items in the power scale, 65, 88, and 67, were observed to have reliability coefficients of .35, .35, and .36, respectively. Based on the scale variance for each of the three power scale items if they were deleted and several attempts to rewrite the items, it was determined that the scale's internal consistency reliability would be
strengthened by the deletion rather than a revision of the three items. Therefore, the three items under power were deleted in the revision of the instrument. Three scales: leadership, use of technology, and educating all students, had items deemed as good in reliability but worst in the scale’s items. The items were leadership, 77 and 80, use of technology, 71, and educating all students, 13. Based on these items, initial reliability coefficient, they were rewritten in the revision of the instrument to improve their cohesiveness with the other scale items.

The dimensions of resources, rewards, integrated approaches, knowledge, and teaching for understanding had reliability coefficients below .60. These low reliability coefficients could have been due to few items on the survey instrument and/or to the items being conceptually alien to the intended construct. Teaching for understanding had the lowest reliability coefficient (.12). Integrated approaches had a reliability coefficient of .49. Each of these scales had one worst item that needed to be rewritten or deleted. A review of the scale variance for the teaching for understanding and integrated approaches items and written revisions of those items indicated that rewritten items could make them more cohesive with the other items in the scale. Other scales with worst items that needed to be rewritten but not deleted were resources and knowledge. The worst items in these dimensions were rewritten in the revision of the instrument. In the instrument’s revision, additional items were written for rewards, teaching for understanding, and integrated approaches.

Total mean scores were computed for dimensions of capacity with acceptable internal consistency reliability coefficients above .60. These dimensions were leadership, instructional guidance system, power, information, educating all students, and use of
technology. Evidence for concurrent validity was evaluated in these dimensions by comparing the means scores with the criterion of the national Blue Ribbon and the state’s Schools of Excellence awards. The Blue Ribbon school’s mean scores were exceptionally high in the use of technology and educating all students dimensions. This was concurrently valid to the school’s recognition as one of 25 schools in the nation utilizing technology for instruction. It was also concurrent with the Blue Ribbon site visitor’s report to the Blue Ribbon panel. The report noted the school’s strong focus not only in its use of technology but in educating all students. The school selected several years ago as a state School of Excellence also had mean scores that were concurrent with the criteria of the award. The school had exceptionally high mean scores in the dimensions of leadership, information, power, and integrated approaches. These scores provided further evidence for concurrent content validity.

Based on the data from the first pilot of the survey, specific changes were made to items in several of the dimensions to improve the internal consistency of the scales. The changes included rewriting one item for resources, knowledge, integrated approaches, and technology. All three items were rewritten and two were added for teaching for understanding. Three items were added for rewards and three were completely deleted for power. In addition, the superintendent of the district participating in this study requested a special section at the beginning of the survey. Eight items were written for this section with the understanding that those eight items would not be a part of this study. Charts indicating the changes made (Appendix D) for the revised survey (Appendix E) are reported in the appendices.
Second Pilot Study

The second pilot study for the revised instrument was conducted in three states at both public and private schools. The sample consisted of 61 respondents. As in the first pilot study, Cronbach alpha coefficient for internal consistent reliability was used to assess intra-scale item cohesiveness. Internal consistent reliability was determined for the total inventory and each dimension of the revised instrument.

The results of this analysis indicated that most of the changes that were made in the items from pilot one to the second pilot improved the internal consistency of the dimensions. Only two of the dimensions, resources and teaching for understanding, had alpha levels below .60. The overall Cronbach alpha for all of the items for the second pilot sample was .92.

Three items were changed as a result of the second pilot. Item 61 was removed from resources and added to leadership. This change was made as a result of the item’s high correlation to leadership. Item 49 was moved from leadership to resources since it was highly correlated to the resource dimension. Item 37 was dropped from teaching for understanding. The correlation for item 37 was close to zero in this and the first pilot with the teaching for understanding dimension. These changes increased Cronbach’s alpha for the dimensions of leadership (.81 to .86), resources (.46 to .73), and teaching for understanding (.59 to .77). The changes also increased the overall Cronbach alpha for all items to .96. Table 1 compares the Cronbach’s alphas of the first and second pilot and indicates the final alpha after revisions were made.
Table 1

Cronbach’s Alpha by Dimension of Capacity for Pilot Studies One and Two

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions of Capacity</td>
<td>First Pilot</td>
</tr>
<tr>
<td>Teaching for Understanding (TU)</td>
<td>.12</td>
</tr>
<tr>
<td>Use of Technology (UT)</td>
<td>.73</td>
</tr>
<tr>
<td>Educating All Students (EAS)</td>
<td>.74</td>
</tr>
<tr>
<td>Integrated Approaches (IA)</td>
<td>.49</td>
</tr>
<tr>
<td>Power (P)</td>
<td>.86</td>
</tr>
<tr>
<td>Knowledge (K)</td>
<td>.43</td>
</tr>
<tr>
<td>Information (I)</td>
<td>.83</td>
</tr>
<tr>
<td>Rewards (REW)</td>
<td>.53</td>
</tr>
<tr>
<td>Instructional Guidance System (IGS)</td>
<td>.86</td>
</tr>
<tr>
<td>Leadership (L)</td>
<td>.86</td>
</tr>
<tr>
<td>Resources (RES)</td>
<td>.58</td>
</tr>
</tbody>
</table>

Test-Retest Reliability

In order to establish the instrument’s stability over time, the revised instrument was administered to the same professional staff twice with a two-week interval between
administrations (See Appendix F). The 25 respondents for the test-retest reliability were from the K-8 rural school that had participated in the first pilot of the instrument.

The test-retest used paired samples total scores and scores for each dimension. The total average results of the two-week test-retest reliability correlation = .96, p<.02. The test-retest correlation for each dimension was teaching for understanding (.95), use of technology (.95), educating all students (.94), integrated approaches (.95), power (98), knowledge (.96), information (.96), rewards (.96), instructional guidance (.98), leadership (.98), resources (.97).

**Internal Consistency Reliability for Study Sample**

Internal consistency reliability for the study sample was determined using a Cronbach alpha statistic for each dimension and total inventory. Data on Cronbach’s alpha for this study’s sample population are provided in Table 2. The Cronbach alpha coefficients for five dimensions, teaching for understanding, educating all students, integrated approaches, and instructional guidance, were slightly higher for the study’s sample than for the pilot studies. The Cronbach alpha coefficients for four dimensions, use of technology, power, knowledge, and resources, were somewhat lower for the study’s sample than for the pilot studies. The Cronbach alpha for leadership was basically the same as that calculated for the pilot studies. The Cronbach alpha for rewards dropped to .38 for the study’s sample. This drop from .69 to .38 indicates that this scale has questionable reliability. Based on the argument that information from the analysis could be potentially valuable, the data on rewards were analyzed for the research question.
### Table 2

**Cronbach’s Alpha by Dimension of Capacity for the Study Sample of the District**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Dimensions of Capacity</th>
<th>Items</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching for Understanding (TU)</td>
<td></td>
<td>5</td>
<td>.84</td>
</tr>
<tr>
<td>Use of Technology (UT)</td>
<td></td>
<td>5</td>
<td>.75</td>
</tr>
<tr>
<td>Educating All Students (EAS)</td>
<td></td>
<td>9</td>
<td>.82</td>
</tr>
<tr>
<td>Integrated Approaches (IA)</td>
<td></td>
<td>5</td>
<td>.74</td>
</tr>
<tr>
<td>Power (P)</td>
<td></td>
<td>11</td>
<td>.83</td>
</tr>
<tr>
<td>Knowledge (K)</td>
<td></td>
<td>5</td>
<td>.68</td>
</tr>
<tr>
<td>Information (I)</td>
<td></td>
<td>8</td>
<td>.83</td>
</tr>
<tr>
<td>Rewards (REW)</td>
<td></td>
<td>5</td>
<td>.38</td>
</tr>
<tr>
<td>Instructional Guidance System (IGS)</td>
<td></td>
<td>6</td>
<td>.77</td>
</tr>
<tr>
<td>Leadership (L)</td>
<td></td>
<td>14</td>
<td>.85</td>
</tr>
<tr>
<td>Resources (RES)</td>
<td></td>
<td>4</td>
<td>.65</td>
</tr>
</tbody>
</table>

**Demographic Description of the Sample**

The study’s population (N=390) was generated from the professional staff at each of the six schools in the district. The study’s population of professional staff included
school-level administrators, classroom teachers, resource teachers, and instructional assistants. The response rate for this study was 364, (93%).

The identity of the school district, schools, and participants in the study were protected. Data were reported by the following school codes: AE, BE, CH, DE, EE, and FM. The second letter of the code represented the grade level organization of the school. The grade level organizational pattern was the following: E= K-5, M = 6-8, and H= 9-12.

As with the data from the pilot studies, the computer program of the Statistical Package for the Social Sciences (SPSS) was used for analysis. Table 2, Cronbach’s Alpha for the Study Sample (presented earlier), also indicated the total number of items for each of the eleven scales. These scales were the following: teaching for understanding (5), use of technology (5), educating all students (9), integrated approaches (5), power (11), knowledge (5), information (8), rewards (5), instructional guidance system (6), leadership (14), and resources (4). In order to make “total scores” comparable, a sum was calculated for each person’s items for a given scale. The sum was then divided by the number of items in the scale. This allowed for inter-scale comparisons. The scale value for all items ranged from strongly agree = 6, agree = 5, moderately agree = 4, moderately disagree = 3, disagree = 2, to strongly disagree = 1.

Based on the participating school district’s request, the study sample was categorized into one of four professional roles: (a.) classroom teacher, (b.) resource teacher, (c.) instructional assistant, and (d) administrator, guidance, and media. Tables 3 through 8 summarize demographics by professional roles, gender, race, years of professional experience, age, and service on the school’s instructional council. Of the 364 participants in the study, 220 (60%) identified their professional role in the school,
271 (74.1%) reported gender, 270 (74%) reported race, 275 (75%) reported years of professional experience, 258 (71%) reported age, and 281 (77%) reported whether they had served on the school’s instructional council.

Of the 220 participants reporting professional roles, 70% were classroom teachers, 17% were resource teachers, 9% were instructional assistants, and 4% were administrators, guidance, and media. Of those reporting gender, 71% were female and 29% were males. Of those reporting race, 91% were white, 1% were Hispanic, 2% were African American and 6% were other. Of those reporting professional experience, 1-5 years were 30%, 16-20 and 21+ years were 16%, and 11-15 years were 20%. Of those reporting age, 35% were 30-39, 34% were 40-49, 19% were 21-29, 10% were 50-59, and 1% were 60+. Of that number reporting service on their school’s instructional council, 59% indicated they had not been a member of their school’s instructional council.

Table 3

Frequency and Percent of Respondents by Role

N = 220

<table>
<thead>
<tr>
<th>School Role</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Teacher</td>
<td>153</td>
<td>70</td>
</tr>
<tr>
<td>Resource Teacher</td>
<td>37</td>
<td>17</td>
</tr>
<tr>
<td>Instructional Assistant</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Administrator, Guidance, Media</td>
<td>10</td>
<td>4</td>
</tr>
</tbody>
</table>
### Table 4

**Frequency and Percent of Respondents by Gender**

N = 272

<table>
<thead>
<tr>
<th>Gender</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>192</td>
<td>71</td>
</tr>
<tr>
<td>Male</td>
<td>80</td>
<td>29</td>
</tr>
</tbody>
</table>

### Table 5

**Frequency and Percent of Respondents by Race**

N = 270

<table>
<thead>
<tr>
<th>Race</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>White</td>
<td>246</td>
<td>91</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>6</td>
</tr>
</tbody>
</table>
Table 6

Frequency and Percent of Respondents by Years of Professional Experience

N = 275

<table>
<thead>
<tr>
<th>Years Professional Experience</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>82</td>
<td>30</td>
</tr>
<tr>
<td>6-10</td>
<td>48</td>
<td>17</td>
</tr>
<tr>
<td>11-15</td>
<td>55</td>
<td>20</td>
</tr>
<tr>
<td>16-20</td>
<td>45</td>
<td>16</td>
</tr>
<tr>
<td>21+</td>
<td>45</td>
<td>16</td>
</tr>
</tbody>
</table>
Table 7

Frequency and Percent of Respondents by Age

N = 258

<table>
<thead>
<tr>
<th>Age</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-29</td>
<td>50</td>
<td>19</td>
</tr>
<tr>
<td>30-39</td>
<td>91</td>
<td>35</td>
</tr>
<tr>
<td>40-49</td>
<td>88</td>
<td>34</td>
</tr>
<tr>
<td>50-59</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>60+</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 8

**Frequency and Percent of Respondents by Service on the School’s Instructional Council**

N = 281

<table>
<thead>
<tr>
<th>Response</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>167</td>
<td>59</td>
</tr>
<tr>
<td>Yes</td>
<td>114</td>
<td>41</td>
</tr>
</tbody>
</table>

Prior to the analysis of the data for the research questions, frequency and percentage of responses for each dimension of capacity were determined by school. Table 9 presents the number of total respondents and the frequency and percentage of responses to each dimension of capacity by school and the district. For example, the percentage of total participants from the schools responding to power ranged from a high of .89 (FM) to a low of .73 (BE). This was in contrast to the higher response rate for integrated approaches, .95 (CH)-.91 (DE).
<table>
<thead>
<tr>
<th>Dimensions of Capacity</th>
<th>AE (N=49) f / %</th>
<th>BE (N=51) f / %</th>
<th>CH (N=78) f / %</th>
<th>DE (N=53) f / %</th>
<th>EE (N=50) f / %</th>
<th>FM (N=83) f / %</th>
<th>Total (N=364) f / %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educating All Students (EAS)</td>
<td>45 / 92</td>
<td>41 / 80</td>
<td>71 / 91</td>
<td>44 / 83</td>
<td>39 / 78</td>
<td>66 / 80</td>
<td>306 / 84</td>
</tr>
<tr>
<td>Integrated Approaches (IA)</td>
<td>46 / 93</td>
<td>47 / 92</td>
<td>74 / 95</td>
<td>48 / 91</td>
<td>47 / 94</td>
<td>78 / 94</td>
<td>340 / 93</td>
</tr>
<tr>
<td>Use of Technology (UT)</td>
<td>47 / 96</td>
<td>45 / 88</td>
<td>70 / 90</td>
<td>49 / 92</td>
<td>46 / 92</td>
<td>82 / 99</td>
<td>339 / 93</td>
</tr>
<tr>
<td>Teaching for Understanding (TU)</td>
<td>47 / 96</td>
<td>47 / 92</td>
<td>71 / 91</td>
<td>46 / 87</td>
<td>43 / 86</td>
<td>81 / 98</td>
<td>335 / 92</td>
</tr>
<tr>
<td>Leadership (L)</td>
<td>47 / 96</td>
<td>40 / 78</td>
<td>71 / 91</td>
<td>40 / 75</td>
<td>39 / 78</td>
<td>72 / 87</td>
<td>309 / 85</td>
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<td>Instructional Guidance System (IGS)</td>
<td>48 / 98</td>
<td>44 / 86</td>
<td>74 / 95</td>
<td>48 / 91</td>
<td>43 / 86</td>
<td>75 / 90</td>
<td>332 / 91</td>
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<td>Resources (R)</td>
<td>46 / 93</td>
<td>43 / 84</td>
<td>74 / 95</td>
<td>43 / 81</td>
<td>43 / 86</td>
<td>76 / 92</td>
<td>325 / 89</td>
</tr>
<tr>
<td>Knowledge (K)</td>
<td>47 / 96</td>
<td>47 / 92</td>
<td>72 / 92</td>
<td>48 / 91</td>
<td>47 / 94</td>
<td>79 / 95</td>
<td>340 / 93</td>
</tr>
<tr>
<td>Information (I)</td>
<td>47 / 97</td>
<td>45 / 88</td>
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<td>47 / 89</td>
<td>43 / 86</td>
<td>78 / 94</td>
<td>334 / 92</td>
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<tr>
<td>Rewards (R)</td>
<td>46 / 93</td>
<td>45 / 88</td>
<td>74 / 95</td>
<td>43 / 81</td>
<td>46 / 92</td>
<td>74 / 89</td>
<td>328 / 90</td>
</tr>
<tr>
<td>Power (P)</td>
<td>41 / 84</td>
<td>37 / 73</td>
<td>69 / 87</td>
<td>40 / 75</td>
<td>40 / 80</td>
<td>74 / 89</td>
<td>300 / 82</td>
</tr>
</tbody>
</table>
Answers to Research Questions

The computer program Statistical Package for the Social Sciences (SPSS) was used to analyze the data (Nie, Hull, Jenkins, Steninbrenner, & Bent, 1995, version 6.1). The distribution of data was summarized in tables, frequencies, and descriptive statistics. Descriptive statistics provided the frequency of responses, measures of central tendency, and standard deviations for each item. The “standardization” of each dimension was accomplished by summing all item responses and dividing by the number of items. The result allowed for dimension comparability. Pearson correlations were calculated to assess the degree to which the eleven dimensions of capacity related among each other (Borg & Gall, 1989). The results of these analyses are reported in this section in the following sequence: descriptive statistics for degree of dimension’s presence by schools, descriptive statistics degree of dimension’s presence by respondents’ professional roles, rank order of principal’s leadership for change, yes / no responses for the dimensions of educating all students, use of technology, and power, and Pearson’s Correlation.

Analysis of the Degree of Dimension’s Presence by Schools

The research questions sought to measure the degree of the dimensions of capacity at each school in the district via the use of a 1-6 Likert scale. The scale value for all items was the following: strongly agree = 6, agree = 5, moderately agree = 4, moderately disagree = 3, disagree = 2, and strongly disagree = 1. The mean scores and standard deviations for the schools and district were consolidated for clarity and ease of comparison in Table 10. The schools’ mean scores and the range in parenthesis for each dimension of capacity was:
• Educating All Students - 4.74 to 3.80 (.94)
• Integrated Approaches - 4.74 to 3.89 (.85)
• Use of Technology - 3.88 to 3.10 (.70)
• Teaching for Understanding - 5.10 to 3.89 (1.21)
• Leadership - 4.96 to 4.20 (.76)
• Instructional Guidance System - 5.29 to 4.35 (.94)
• Resources - 4.40 to 3.32 (1.08)
• Knowledge - 4.74 to 4.47 (.27)
• Information - 4.90 to 3.91 (.99)
• Rewards - 3.62 to 3.26 (.36)
• Power - 4.15 to 3.37 (.78)

The schools’ ranks in descending order by each dimension of capacity were as follows:

• Educating All Students - AE (M=4.74), AB (M=4.72), DE (M=4.51), EE (M=4.36), FM (M=4.18), and CH (M=3.80)

• Integrated Approaches - BE (M=4.74), AE (M=4.70), EE (M=4.62), DE (M=4.56), FM (M=4.22), and CH (M=3.89).

• Use of Technology - FM (M=3.88), AE (M=3.77), BE (M=3.65), EE (M=3.47), DE (M=3.45), and CH (M=3.10)

• Teaching for Understanding - BE (M=5.10), AE (M=4.89), DE (M=4.63), EE (M=4.60), FM (M=4.44), and CH (M=3.89)

• Leadership - BE (M=4.96), AE (M=4.91), EE (M=4.79), DE (M=4.71), FM (M=4.41), and CH (M=4.20)
• Instructional Guidance System - BE (M=5.29), AE (M=5.20), EE (M=4.90), DE (M=4.87), FM (M=4.48), and CH (M=4.35)

• Resources - EE (M=4.40), AE (M=4.37), BE (M=4.27), DE (M=4.12), FM (M=3.96), and CH (M=3.32).

• Knowledge - EE (M=4.74), BE (M=4.71), CH (M=4.63), DE (M=4.56), AE (M=4.48), and FM (M=4.47)

• Information - AE (M=4.90), BE (M=4.88), DE (M=4.61), EE (M=4.58), FM (M=4.29), and CH (M=3.91),

• Rewards - DE (M=3.62), CH (M=3.57), AE (M=3.52), FM (M=3.51), EE (M=3.50), and BE (M=3.26),

• Power - BE (M=4.15), DE (M=4.10), EE (M=4.04), AE (M=3.92), FM (M=3.82), and CH (M=3.37).

The highest degrees of perceived presence by dimension of capacity and school were the following, listed in descending order: instructional guidance system (BE, 5.29), teaching for understanding (BE, 5.10), leadership (BE, 4.96), information (AE, 4.90), educating all students (AE, 4.74), integrated approaches (BE, 4.74), knowledge (EE, 4.74), resources (EE, 4.40), power (BE, 4.15), use of technology (FM, 3.88), and rewards (DE, 3.62). School BE reported the highest degree of presence in five dimensions - instructional guidance system, teaching for understanding, leadership, integrated approaches, and power. School AE reported the highest presence in two dimensions - information and educating all students. School AE was close to school BE in both leadership (4.91) and instructional guidance (5.20). School EE reported the highest presence in two dimensions which were knowledge and resources. School FM reported
the highest degree of use of technology (3.88). School DE reported the highest degree of rewards (3.62).

In descending order, the lowest perceived degrees of presence by dimension of capacity and school were the following: knowledge (FM, 4.47), instructional guidance system (CH, 4.35), leadership (CH, 4.20), information (CH, 3.91), integrated approaches (CH, 3.89), teaching for understanding (CH, 3.89), educating all students (CH, 3.80), resources (CH, 3.32), power (CH, 3.37), rewards (BE, 3.26) and use of technology (CH, 3.10). School CH reported the lowest degree of presence in the following nine dimensions: instructional guidance system, teaching for understanding, leadership, integrated approaches, information, resources, power, use of technology, and educating all students. School FM reported the lowest presence in the dimensions of knowledge and next to the lowest degree in integrated approaches and resources.

The following patterns were noted in an examination of Table 10:

- Except for the five dimensions of knowledge, use of technology, resources, rewards, and power, schools AE and BE had either the first or second highest mean scores.

- Except for the same five dimensions in pattern one, knowledge, use of technology, resources, rewards, and power, schools DE and EE had the third or fourth highest mean scores.

- Except for two dimensions, knowledge and rewards, school CH had the lowest mean scores.

- Except for two dimensions, use of technology and rewards, school FM had next to the lowest mean scores.
• Two dimensions, educating all students and information, had the same school rank order of schools' mean scores - AE, BE, DE, EE, FM, and CH.

• Except for two schools, AE and BE, reversing first and second positions for the highest mean scores, teaching for understanding had the same school rank order as the dimensions educating all students and information.

• Three dimensions, integrated approaches, leadership, and instructional guidance system, had the same schools rank order for mean scores - BE, AE, EE, DE, FM, and CH.
### Table 10

Degree of Dimensions of Capacity Results by Each School in the District

<table>
<thead>
<tr>
<th>Dimension</th>
<th>AE N=49</th>
<th>BE N=51</th>
<th>CH N=78</th>
<th>Schools</th>
<th>DE N=53</th>
<th>EE N=50</th>
<th>FM N=83</th>
<th>District Total N=364</th>
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<td>0.73</td>
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### Degree of Dimensions of Capacity Results by Each School in the District

<table>
<thead>
<tr>
<th>Dimension</th>
<th>AE (N=49)</th>
<th>BE (N=51)</th>
<th>CH (N=78)</th>
<th>DE (N=53)</th>
<th>EE (N=50)</th>
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<th>Total (N=364)</th>
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<tr>
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<td>0.68</td>
<td>0.57</td>
<td>0.61</td>
<td>0.61</td>
<td>0.70</td>
</tr>
</tbody>
</table>

Dimensions of Capacity Legend:

- **EAS** = Educating All Students
- **IA** = Integrated Approaches
- **UT** = Use of Technology
- **TU** = Teaching for Understanding
- **L** = Leadership
- **IGS** = Instructional Guidance
- **RES** = Resources
- **K** = Knowledge
- **I** = Information
- **REW** = Rewards
- **P** = Power

(See Appendix H for individual charts for each dimension of capacity by schools)

### Analysis of Degree of Dimensions Presence by Respondents’ Professional Roles

Mean scores and standard deviations were calculated for each dimension of capacity by professional role category. The means for professional role ranged from 5.21 for the administrators, guidance, and media perception of leadership and instructional guidance system to 3.34 for the resource teachers’ perception of rewards. Except for two dimensions, resources and rewards, the professional staff categorized as guidance, media, and specialist consistently perceived a higher degree of existence of each dimension. Except for two dimensions, educating all students and knowledge, the lowest mean scores were those of classroom teachers. On the resource dimension of
capacity, the instructional assistants had the highest mean score with administrators, guidance, and media second. Instructional assistants and administrators, guidance, and media had the same high mean score for knowledge. Resource teachers reported the lowest mean scores on the dimension of knowledge while instructional assistants reported the lowest mean for educating all students. These results are reported in Table 11.
Table 11

Degree of the Dimensions of Capacity by Respondents' Professional Roles

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Teacher (N = 153)</th>
<th>Resource (N = 37)</th>
<th>Instructional Assistant (N = 20)</th>
<th>Administrator, Guidance, Media (N = 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
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<td>.42</td>
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<td>.59</td>
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<td>3.57</td>
<td>.56</td>
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<td>.47</td>
<td>4.49</td>
<td>.58</td>
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<td>.41</td>
<td>4.74</td>
<td>.36</td>
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<td>4.89</td>
<td>.63</td>
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<td>4.63</td>
<td>.72</td>
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<tr>
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<td>.62</td>
<td>3.34</td>
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<tr>
<td>P</td>
<td>3.82</td>
<td>.68</td>
<td>3.95</td>
<td>.71</td>
</tr>
</tbody>
</table>

Dimensions of Capacity Legend:

EAS = Educating All Students  IA = Integrated Approaches  UT = Use of Technology
TU = Teaching for Understanding  L = Leadership  IGS = Instructional Guidance
System  RES = Resources Knowledge  I = Information  REW = Rewards  P = Power
Rank Order for Principal’s Leadership for Change

In addition to the Likert scale items, six rank order items were used to determine the principal’s leadership for change as compared to other leadership positions. The six leadership rank order items for change were faculty members, board members, superintendents, principals, community members, and instructional councils. Participants were to rank each person or groups responsible for change on a scale of 6 = most responsible to 1 = least responsible. The results of the principal’s leadership for change is reported as percentage tabulations in Table 12. (See appendix I for tables for faculty members, board members, superintendents, community members, and instructional councils).

School BE ranked the principal not only as the most responsible for change at 35% but did not rank the principal’s responsibility for change below third. Although 20% of the participants from school AE ranked the principal as the most responsible, 6, for change, AE also had the greatest range of responses across all rankings including the highest individual school percentage of 12% for the principal being the least responsible, 1. Ranked in descending order by school the percentage positions for the principal being the most responsible, 6, were BE (35%), EE (24%), AE (20%), DE (15%), and CH and FM (8%). Ranked in descending order by school the percentage positions for the principal being the second most responsible, 5, were DE (28%), FM (25%), CH and EE (24%), BE (22%) and AE (18%). Ranked in descending order by school the percentage rankings for the principal being the least responsible, 1, were AE (12%), CH (6%), EE and FM (4%), and DE and BE (0%). These findings were congruent with the findings from the Likert scale for leadership’s presence.
Table 12

Principal's Leadership for Change by Rank Order

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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>NR</th>
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<td>0</td>
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<td>25</td>
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<td>24</td>
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Yes / No Response Results for Educating All Students, Use of Technology, and Power

In addition to the Likert scale items, a yes / no response was used to determine whether changes had taken place in the school within the past three years that had improved instruction for all students. Percentage tabulations on whether change had improved instruction for all students are reported in Table 13. The percentage of 'yes' responses to changes in the school over the past three years that improved instruction for all students ranged from a high of 78% for AE to a low of 40% for CH. Ranked in descending order by school the percentage rankings were AE (78%), BE (71%), FM and
DE (64%), EE (58%), and CH (40%). These findings were congruent with the previous findings from the Likert scale and rank order results.

Table 13

**Changes in the Past Three Years Improved Instruction for All Students**

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<td>%</td>
<td>%</td>
<td>%</td>
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<tr>
<td>CH</td>
<td>40</td>
<td>42</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>DE</td>
<td>64</td>
<td>11</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>EE</td>
<td>58</td>
<td>14</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>FM</td>
<td>64</td>
<td>13</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

Two 'yes' /'no' responses were used to gather additional data about the availability and use of technology in each school. The first question was utilized to determine whether technology was available in the school for use by the professional staff. The percentage tabulations as to whether technology was available in a school for use by the professional staff were reported in Table 14. In Table 14 were noted the percentage of 'yes' responses on the availability of technology for professional use which ranged from a high of 99% for school FM to a low of 80.8% for school CH. Ranked in
descending order by school the percentage rankings were FM (99%), AE (89.8), DE (88.7%), BE (86.3%), EE (86%), and CH (80.8).

The second question asked concerned whether or not technology was used in the delivery of instruction. The use of technology in the delivery of instruction was summarized in Table 15. A high 'yes' response of 76% was indicated for three schools, AE, FM, and BE. The lowest 'yes' response was 60% for school CH. The remaining two schools ranked in descending order by percentage rankings were EE with 68% and DE with 64%. With the exception of school FM reporting a 99% 'yes' response for availability of technology and a 76% usage in instruction, the 'yes' / 'no' responses for the use of technology were generally aligned with the previous findings from the Likert scale where school FM reported the highest degree of presence of technology.
Table 14

**Availability of Technology to the Professional Staff**

<table>
<thead>
<tr>
<th>School Code</th>
<th>Yes %</th>
<th>No %</th>
<th>No Response %</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>89.8</td>
<td>6.1</td>
<td>4.1</td>
</tr>
<tr>
<td>BE</td>
<td>86.3</td>
<td>5.9</td>
<td>7.8</td>
</tr>
<tr>
<td>CH</td>
<td>80.8</td>
<td>12.8</td>
<td>6.4</td>
</tr>
<tr>
<td>DE</td>
<td>88.7</td>
<td>3.8</td>
<td>7.5</td>
</tr>
<tr>
<td>EE</td>
<td>86</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>FM</td>
<td>99</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 15

Use of Technology for Instructional Delivery

<table>
<thead>
<tr>
<th>School Code</th>
<th>Yes %</th>
<th>No %</th>
<th>Not Applicable %</th>
<th>No Response %</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>76</td>
<td>2</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>BE</td>
<td>76</td>
<td>8</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>CH</td>
<td>60</td>
<td>14</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>DE</td>
<td>64</td>
<td>25</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>EE</td>
<td>68</td>
<td>10</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>FM</td>
<td>76</td>
<td>18</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Two 'yes'/'no' responses were also used to gather additional data about the dimension of power. The questions specifically addressed the impact of the school’s instructional council on the school’s instructional programs and also addressed faculty input into the school’s decision-making process. The first question was to determine whether the instructional council’s power had resulted in decisions that had improved the school’s instructional program. The percentage tabulations as to whether the instructional council made decisions which had improved the instructional program were reported in Table 16.

The percentage of ‘yes’ responses as to whether the instructional council’s decisions had resulted in improving the school ranged from a high of 80% for school EE to a low of 59% for school CH. These findings were reported in Table 16. Ranked in
descending order by school the percentage rankings were EE (80%), BE and FM (75%),
AE (73), DE (72%), and CH (59%).

The second ‘yes’ /’no’ question was to determine whether the school’s
instructional council had provided the faculty with input into the school’s decision-
making. The tabulated percentage responses as to whether the instructional council
provided the faculty with input into the school’s decision-making were reported in Table
17. The percentage of ‘yes’ responses, noted in Table 17, as to whether the instructional
council provided the faculty with input into the school’s decision-making, ranged from a
high of 87% for DE to a low of 36% for CH. Ranked in descending order by school, the
percentage rankings were DE (87%), AE (82%), EE (80%), BE (75%), FM (67%), and
CH (36%).

A review of the findings of Table 17, faculty input into the school’s decision-
making process through the school’s instructional council, compared to the Likert results
on power revealed the following:

- School BE ranked first on the degree of power and fourth on faculty input.
- School AE ranked fourth on the degree of power and second on faculty input.
- School DE ranked second on power and first on faculty input.
- Schools EE, FM and CH ranked third, fifth and sixth on degree of power and
  faculty input.
Table 16

Instructional Council’s Decisions and Improved Instructional Program

<table>
<thead>
<tr>
<th>School</th>
<th>Yes %</th>
<th>No %</th>
<th>No Response %</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>73</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>BE</td>
<td>75</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>CH</td>
<td>59</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>DE</td>
<td>72</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>EE</td>
<td>80</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>FM</td>
<td>75</td>
<td>16</td>
<td>9</td>
</tr>
</tbody>
</table>
Table 17

Instructional Council and Faculty Input into the School's Decision-Making Process

<table>
<thead>
<tr>
<th>School Code</th>
<th>Yes %</th>
<th>No %</th>
<th>No Response %</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>82</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>BE</td>
<td>75</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>CH</td>
<td>36</td>
<td>45</td>
<td>19</td>
</tr>
<tr>
<td>DE</td>
<td>87</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>EE</td>
<td>80</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>FM</td>
<td>67</td>
<td>20</td>
<td>13</td>
</tr>
</tbody>
</table>

Pearson's Correlation Among Dimensions of Capacity

A Pearson correlation coefficient was used to answer the question as to what relationship, if any, existed among the dimensions of capacity. A correlation, r, of .50 or greater reflected that at least 25% of the variance of the two dimensions was shared. Relationships ranged from a .82 between leadership and power to a .04 between use of technology and knowledge. The dimensions of capacity including use of technology, knowledge, and rewards, had correlations of .48 or less with the other dimensions. Six dimensions of capacity had correlations of .50 or higher with a statistical significance of p <.01 with seven other dimensions. These six dimensions were: educating all students, integrated approaches, leadership, instructional guidance system, information and power. Specifically, educating all students, integrated approaches, leadership, instructional
guidance system, information, and power had statistically significant correlations with every dimension of capacity except three. These three were: use of technology, knowledge, and rewards. Teaching for understanding and resources had correlations of .50 or higher with six other dimensions at a statistical significance of p < .01. Teaching for understanding and resources had a correlation of 0.46.

Of the four instructional delivery models, three had correlations of .50 or higher with a statistical significance of p < .01. with each other. These three were educating all students, integrated approaches, and teaching for understanding. Their highest correlations with any of the environmental indicators were with information. All three delivery models also had high correlations with leadership, instructional guidance system, and power. Integrated approaches and educating all students had high correlations with resources. As noted earlier, resources had a correlation of 0.46 with teaching for understanding. These findings are reported in Table 18.
Table 18

Correlation Among Dimensions of Capacity

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Instruction Delivery / Environmental Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAS</td>
<td>IA</td>
</tr>
<tr>
<td>EAS</td>
<td>1.00</td>
</tr>
<tr>
<td>IA</td>
<td>1.00</td>
</tr>
<tr>
<td>UT</td>
<td>1.00</td>
</tr>
<tr>
<td>TU</td>
<td>1.00</td>
</tr>
<tr>
<td>L</td>
<td>1.00</td>
</tr>
<tr>
<td>IGS</td>
<td>1.00</td>
</tr>
<tr>
<td>RES</td>
<td>1.00</td>
</tr>
<tr>
<td>K</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
</tr>
<tr>
<td>REW</td>
<td>1.00</td>
</tr>
<tr>
<td>P</td>
<td></td>
</tr>
</tbody>
</table>

* = p<.01      ** = p<.05  (2 tailed)

Dimensions of Capacity Legend:

EAS = Educating All Students    IA = Integrated Approaches    UT = Use of Technology  
TU = Teaching for Understanding  L = Leadership    IGS = Instructional Guidance System 
RES = Resources    K = Knowledge    I = Information    REW = Rewards    P = Power
Summary of Results

In this chapter, the following three categories of results were reviewed: (1) the pilot studies for validity and reliability, (2) the demographics of the sample, and (3) the research questions. The results of the pilot studies indicated that the instrument was appropriate for the collection of data on the dimensions of capacity. The demographic findings from the respondents revealed the respondents were primarily white, female teachers between the ages of 30-39 with a wide range of years of professional experience.

In a review of the research question findings, the following observations were noted:

- Six dimensions of capacity including educating all students, integrated approaches, leadership, instructional guidance system, information, and power had correlations of .50 or greater with a significance level of p<.01 with every dimension of capacity except use of technology, knowledge, and rewards.

- Use of technology, knowledge, and rewards had no significant level with correlations of 0.48 or less with the other dimensions.

- Teaching for understanding and resources had correlations of .50 or higher with a significance level of p<.01 with educating all students, integrated approaches, leadership, instructional guidance system, information, and power but their correlation of 0.46 between each other had no level of significance.

- The percentage of professional staff in the schools responding to whether the instructional delivery was focused on the differentiated need of all students ranged from a high of 92% to a low of 78%. The total percentage responding for the school district was 84%. On a Likert scale of 1 to 6, the schools varied from a mean score of 4.74 to 3.80 (.94). As to whether or not instruction was improved
for all students, 42% of the professional staff at the school with a mean score of 3.80 reported 'no'. Whereas, 78% of the professional staff at the school with a mean score of 4.74 reported 'yes'.

- The percentage of professional staff in the schools responding to whether integrated approaches were used for instructional delivery was above 93%. On a Likert scale of 1 to 6, the schools varied from a mean score of 4.74 to 3.89 (.85).

- The percentage of professional staff in the schools responding to whether technology was used for instructional delivery ranged from a high of 99% to a low of 88%. The total percentage responding for the school district was 93%. On a Likert scale of 1 to 6, the schools varied from a mean score of 3.88 to 3.10 (.70).

  Using a ‘yes’ /‘no’ response for the use of technology for instructional delivery, the range for ‘yes’ was 76% (M = 3.88) to 60% (M = 3.10). As to whether not technology was available, 12.8% of the professional staff at the school with a mean score of 3.10 reported ‘no.’ Whereas, 99% of the professional staff at the school with a mean score of 4.88 reported ‘yes.’

- The percentage of professional staff in the schools responding to whether teaching for understanding was used for instructional delivery ranged from a high of 98% to a low of 87%. The total percentage responding for the school district was 92%. On a Likert scale of 1 to 6, the schools varied from a mean score of 5.10 to 3.89 (1.21).

- The percentage of professional staff in the schools responding to the principal’s leadership ranged from a high of 96% to a low of 75%. The total percentage responding for the school district was 85%. On a Likert scale of 1 to 6, the
schools varied from a mean score of 4.96 to 4.20 (.76). As to how the principal ranked as leader for change in comparison to other leaders for change, 35% of the professional staff at the school with a mean score of 4.96 ranked the principal as 6 (most responsible). Whereas, 8% of the professional staff at the school with a mean score of 4.20 ranked the principal as 6 (most responsible).

- The percentage of professional staff in the schools responding to whether the teaching and learning process of the school was oriented to achieve the school’s vision, mission, and goals ranged from a high of 98% to a low of 86%. The total percentage responding for the school district was 91%. On a Likert scale of 1 to 6, the schools varied from a mean score of 5.29 to 4.35 (.94).

- The percentage of professional staff in the schools responding to the school’s resources ranged from a high of 95% to a low of 81%. The total percentage responding for the school district was 89%. On a Likert scale of 1 to 6, the schools varied from a mean score of 4.40 to 3.32 (1.08).

- The percentage of professional staff in the schools responding to whether they participate in professional development activities that increase their knowledge and application of innovative instructional delivery models, interpersonal skills and team work ranged from a high of 96% to a low of 91%. The total percentage responding for the school district was 93%. On a Likert scale of 1 to 6, the schools varied from a mean score of 4.74 to 4.47 (.27).

- The percentage of professional staff in the schools responding to whether information was being disseminated to the faculty, students, and community ranged from a high of 97% to a low of 86%. The total percentage responding for
the school district was 92%. On a Likert scale of 1 to 6, the schools varied from a mean score of 4.90 to 3.91 (.99).

- The percentage of professional staff in the schools responding to whether incentive structures had been initiated that rewarded both individual and school performance ranged from a high of 95% to a low of 81%. The total percentage responding for the school district was 90%. On a Likert scale of 1 to 6, the schools varied from a mean score of 3.62 to 3.26 (.36).

- The percentage of professional staff in the schools responding to whether power had been decentralized to and in each school ranged from a high of 89% to a low of 73%. The total percentage responding for the school district was 82%. On a Likert scale of 1 to 6, the schools varied from a mean score of 4.15 to 3.37 (.78).

Using a yes / no response for whether the instructional council’s decision had improved the instructional program, the range for yes was 80% ($M = 4.04$) to 59% ($M = 3.37$). As to whether or not the instructional council provided faculty input into the school’s decision-making process, 45% of the professional staff at the school with a mean score of 3.37 reported no. Whereas, 75% of the professional staff at the school with a mean score of 4.15 reported yes. The school with a mean score of 4.04 had 87% report yes.

- The different professional role perceptions for each dimension of capacity revealed a general trend for professionals categorized as administrator, guidance or media to perceive a higher degree of the dimension than did classroom teachers, resource teachers, or instructional assistants. For example, mean scores
for the dimension educating all students differed .72 for administrators, guidance, and media (M = 4.67) compared to resource teachers (M = 3.95).
CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This study sought to develop a survey instrument that could be used to describe and analyze the dimensions of capacity in each school in the participating school district. The extant literature on shared decision making as a restructuring mechanism for systemic reform conceptually framed the variables referred to in this study as dimensions of capacity. The identified variables (defined and described in Chapters I and II) were educating all students, integrated approaches, use of technology, teaching for understanding, leadership, instructional guidance system, resources, knowledge, information, rewards, and power. The survey instrument was field tested and revised to establish content, face, and concurrent validity, internal consistency, and test-retest reliability (see Chapters III and IV). The final instrument utilized a six-point Likert scale, ‘yes’/’no’ responses, rank-order items, and demographic items. This instrument determined the professional staff’s perception of the degree of each dimension of capacity in their school. The data were also analyzed to examine what relationships, if any, existed among the dimensions. The responses to the questionnaire were analyzed using the computer program of the Statistical Package for the Social Science (SPSS). These data analyses included descriptive and inferential statistics (see Chapters III and IV).

The study population consisted of 390 professional staff members in six schools in the participating district. The population included school-level administrators, guidance counselors, media specialists, classroom teachers, resource teachers, and
instructional assistants. At the conclusion of a teacher's record day, the professional staff members at each school were invited to participate in the study. This solicitation resulted in a sample population of 364.

Conclusions

The conclusions of this study were generated from the survey's development administration and utility as an assessment instrument for measuring the dimensions of capacity and from the answers to the 13 research questions described in Chapters I and III. Eleven of the research questions addressed the degree to which the dimensions of capacity existed in a school. One research question was related to the professional staff roles and the degree to which the dimensions of capacity existed in the schools. One research question analyzed the relationship of the dimensions of capacity. Although the analysis of data and findings of the study were provided in Chapter IV, the conclusions presented in this chapter are a synthesis of those findings. The objective is to provide an integrated understanding of the findings.

Survey Instrument

The evaluation of this instrument is based on the positive psychometric features that it demonstrated during the pilots and the collection of data. It can be concluded that the instrument was valid and reliable in measuring the dimensions of capacity. This conclusion is based on the instruments' content and concurrent validity and very high test-retest (.96) and acceptable internal consistency reliability (.96). An exhaustive review of the literature and external reviews by panels of experts established content validity. Concurrent validity was established by comparing the results of the data to known characteristics of the schools. For example, school FM had the highest mean
score for use of technology. It also had the highest availability of technology. The central office staff verified in follow-up interviews that school FM did have more available technology and used the technology they had more frequently than the other schools. School FM consistently had next to the lowest mean scores on the other dimensions of capacity.

In the collection of the data, the instrument was useful in revealing the dimensions of greatest strengths and dimensions for improvement as perceived by professional staff. These data were valuable for school and district educational leaders as a foundation for an educational plan to engage in shared decision making as a mechanism for systemic reform.

The preliminary analyses of the integrated answers to the research questions presented in Chapter IV established the survey instrument’s utility in measuring and analyzing the dimensions of capacity. This conclusion was based on the systematic analysis of the findings from Chapter IV and the discussion of research findings that follow.

**Comparisons Among Research Questions**

The schools’ mean scores and standard deviations were reviewed in conjunction with significant correlations for the dimensions. Based on the schools’ mean scores, clustering patterns and the significant correlations of the dimensions of capacity, the dimensions were divided into two groups, congruent and incongruent. Six dimensions of capacity emerged as congruent. These were educating all students, integrated approaches, teaching for understanding, leadership, instructional guidance system, and information. These dimensions had a significant correlation range of 0.80 (leadership to information)
to 0.59 (integrated approaches to teaching for understanding). The five dimensions of capacity which were incongruent were: use of technology, resources, knowledge, rewards, and power. Three of these five dimensions; specifically, use of technology, knowledge, and rewards, did not have significant correlations with any other dimensions. The dimensions in this group with the highest nonsignificant correlation were: use of technology and resources (0.47). The other two dimensions: power and resources, had a significant correlation of 0.68. Collectively, power and resources had the same significant correlation with two dimensions, educating all students (0.61) and integrated approaches (0.67). Individually, power had a significant correlation with teaching for understanding (0.58), instructional guidance system (0.66), information (.79) and leadership (0.82). Resources had a significant correlation with leadership (0.69), information (0.68) and instructional guidance system (0.62).

An overall view of the degree of dimensions of capacity results by school indicated most scores were medium to medium high. Use of technology and rewards were low. Specifically looking at the congruent dimensions, the high school’s scores were lower than the middle school and the middle school’s scores were lower than the elementary schools. This is illustrated by the two highest dimensions of capacity schools AE and BE and to the lowest dimension of capacity schools CH and FM.

These scores continue to demonstrate the validity of the instrument. For example, the literature and research indicates elementary schools tend to have more of the characteristics of restructuring and systemic reform than either middle or high schools. The research and literature also indicates that high schools tend to have the least capacity for change.
An analysis of the degree of the dimensions of capacity by respondents' professional role indicated no radical between-group differences in perceptions. The category administrator, guidance, and media responded higher than the other three. The other three were classroom teachers, resource teachers, and instructional assistants. The question whether or not the administrators responded differently than did the guidance and media specialists that were in the same category cannot be answered. Since only 10 participants responded in this category, it is difficult to defend all three professional roles being in one category.

Leadership for change and power.

Leadership for change was ranked 1 to 6. A ranking of 6 indicated the person or groups had been the most responsible for change during the past three years. Only one school, BE, ranked the principal (35%) as the most responsible for change. The other five schools, DE (66%), FM (55%), CH (44%), AE (39%), and EE (36%) ranked faculty members as the most responsible for change. In comparison, school BE ranked faculty members (29%) as most responsible. Although school AE ranked faculty members (39%) most responsible, 20% of the participants from AE ranked the principal as the most responsible. BE was also the only school to report a high (25%) for the instructional council’s role as the most important change agent. The other five schools ranked the instructional council’s responsibility for change between 2% and 6%. School AE actually ranked the instructional council as the least responsible (2%). When collectively reviewed by ranking, the persons or groups most responsible for change in descending rank order were the faculty (6), principal (5), an instructional council (4), board members (3), community members (3), and the superintendent (2).
A systematic comparison of change to improved instruction for all students began with whether the professional staff’s perceived change had occurred in their school over the past three years. The professional staff at each school said ‘yes’ (70% to 90%), change had taken place. Schools AE and BE, the two highest dimensions of capacity schools, had the highest responses for yes and the lowest percent of non responses to changes and improved instruction for all students. However, the perception of change taking place, and whether it had improved instruction for all students, were not always parallel. For example, 82% of the professional staff at school CH reported change had occurred but 42% did not believe the change had improved the instructional program for all students. However, CH’s professional staff perception that change had not improved the instructional program for all students was congruent with low mean score of 3.80 for educating all students. A table with a summary of this analysis is reported in Appendix J. There were also similarities between the rankings of schools on power through the instructional council’s decision and improved instructional programs for educating all students. For example, AE ranked fourth and CH last on power and improved instructional programs. These comparisons are reported in Appendix K.

The findings indicate that leadership and power are significantly correlated (.80). The findings also indicate that leadership is significantly correlated with three of the four instructional delivery models. The instructional delivery models and their correlations to leadership were: educating all students (0.63), integrated approaches (0.65), and teaching for understanding (0.54). The findings indicate that power is correlated with the same instructional delivery models as leadership. The significant correlation between power and educating all students was 0.61.
The analysis of the findings for change and power as they related to improved instructional programs for all students indicate that neither change nor shared power necessarily led to improved instructional programs for all students. The same was true for the analysis of the shared power to provide professional staff members with a mechanism for input into a school’s decisions through the instructional council. As evidenced by school CH, a perception of 82% of the participants is that change had taken place in the past three years, but the change does not translate into improved instructional programs for students. The same was true as well of the instructional council providing the faculty with input into the school’s decision and improving the instructional programs for all students.

A key to understanding what appeared to be a paradox may have been in the leadership dimension. For example, school CH had the lowest mean score for the principal’s leadership to build a climate conducive to change and the lowest mean score for power. The leadership dimension is discussed later in this chapter.

Limitations

The evaluation of the instrument indicated it was valid and reliable. Yet, the response rate to specific dimensions or demographics could have been higher. It can be concluded that certain factors may have affected the response rate. Factors that may have influenced the results were primarily in the realm of the administration of the instrument such as time of administration during the school’s calendar year, in service training (staff development) for leaders, the demographics and identity of professional classification subcategories, the size of the schools, the directions for marking ‘yes’ or ‘no’ responses, and the low reliability of the rewards scale. The low reliability of the rewards scale in
comparison to the pilot studies may have been due in part to the teachers’ unions' opposition to a rewards system for teacher and school performance.

Specifically, the initial assessment training for principals included a general overview of the survey’s importance as a benchmark in educational planning and a review of the explanatory cover letter. The preliminary training did not include staff development on the dimensions of capacity. A staff development session over the dimensions of capacity was planned as part of the presentation of the data from the survey for the principals. The rationale for this sequence of training and presentation was based on maintaining the integrity of the survey results.

It is possible that the professional staff perceived the survey as an evaluation of their school. This perception could have produced anxiety and a lower response rate to certain categories of information or scale items. Another factor related to anxiety and the response rate may have been the size of the school, since the size of the school could influence how readily an individual’s identity could be recognized from the demographics. For example, several professional staff members could easily have been identified by either race, age, sex, or professional classification. This may have made them reluctant to respond. The response could indicate a tendency by the participants not to respond to information that could be used to identify the individual responses to specific dimensions such as leadership and power which could be perceived as “dangerous” or “controversial. This could explain the lower frequency of response to demographic information and leadership and power, the two lowest response rates, items.

The survey was administered in the middle of the school year. At the time it was administered, the respondents may not have associated the survey to any specific
educational program or goal from the beginning of the year. Since most planning for the
next school year begins in late Spring, the respondents may not have linked the survey to
the next year’s planning process either.

A ‘yes’/’no’ response was used to determine whether changes had taken place in
the school within the past three years that had improved instruction for all students. A
‘yes’/’no’ response was also used to determine whether technology was available in the
school and whether the professional staff used it for instruction. If change had not
occurred in the school or technology was not available, participants were to mark 2, not
applicable, on the scantron sheet. If change had occurred or technology was available,
participants were to mark either 1 (‘no’) or 3 (‘yes’) to the items as to whether change had
improved instruction for all students and to whether the professional staff used
technology for instruction. In five of the participating schools, participants marked 2 on
the scantron sheet for the availability of technology. On the other ‘yes’/’no’ responses,
participants from every school marked 2 on the scantron sheet. This resulted in a high
rate of ‘no’ response for these items.

The low reliability of the reward’s scale was also a limitation of the study. A
follow up interview with the superintendent in regard to the rewards scale indicated that
he had proposed and developed a recognition program for schools of excellence the
previous year. The proposed recognition program was based on the effective schools
correlates and the National Blue Ribbon criteria. School recognition was divided into
three levels: local, and state, and national. Each level of recognition had a monetary
reward. Any school recognized at the local, state, and national level would have received
a total monetary reward of $18,000. How the money would have been used was to be determined by the professional staff.

The teachers' union and the principals of the schools opposed the program. Their argument was that such a rewards program would cause them to compete with each other. They further argued that competition among schools in the same district was unprofessional. After several meetings with the teacher union representative and principals, the proposed school recognition program was rescinded.

Discussion of Research Findings

The conceptual framework for the research questions of this study (see Chapter II) are incorporated in the examination of the study's findings. Although for the sake of simplicity the posited associations examined in this study are reported by each dimension of capacity, the interactive and interdependent nature of the variables identified in this study as dimensions of capacity made it difficult to review one singularly without simultaneously integrating the others. Therefore, the dimensions' correlations were also integrated with the review of each dimension.

Educating All Students

The report from the National Association of Secondary Principals (NASSP) Commission on Restructuring (1992) stressed that the "effective schools" movement began "with a clear focus" on educating all students (p 34). The summary of the effective schools literature indicated that when all students were expected to learn, they were typically provided with the opportunity. Melvin (1991) indicated that educational opportunity for all students was accomplished by implementing effective teaching practices identified in the literature as well as those determined to be effective through
statistical methodologies. McDonnell (1995) stressed that educating all students was
defined not just by the curriculum content that students are offered but also by how that
content was presented. Educating all students was the initial instructional delivery model
which linked the other instructional delivery models in this study.

The findings of this study generally support these assertions. For example, the
data demonstrate a correlation between educating all students and the instructional
delivery models of integrated approaches (0.70) and teaching for understanding (0.65).
This is further demonstrated by the schools' cluster pattern of rank order on all three of
the correlated instructional delivery models. The findings do not support the literature
that identified the use of technology as an instructional delivery model associated with
educating all students, integrated approaches, and teaching for understanding. In other
words, the study did not find a correlation between educating all students and the use of
technology as an instructional delivery model.

Wohlstetter and Smyer (1994) reported in their study that opportunities were
reflected in a school's philosophy and programs. This study supports the finding that
educating all students and a school's instructional guidance system was linked. This
study found a significant correlation of (0.63) between a school's instructional guidance
system and educating all students. Once again, this is further demonstrated by the
schools' continued cluster pattern for rank order on both educating all students and the
school's instructional guidance system. As indicated in the other findings, educating all
students is highly associated with all the other dimensions of capacity except use of
technology, knowledge, and rewards. Educating all students is most highly correlated
related to integrated approaches (0.70) and information (0.70).
Integrated Approaches

Walker (1995) stated that an integrated approach provided a greater understanding than can be obtained by examining subject areas separately. The data from this study supported an association between integrated approaches and teaching for understanding (0.59). Conley (1993) noted that integration included a consolidation of services between social service agencies and schools to make sure that all students had the opportunity to learn (educating all students). This study also indicates a significant correlation between integrated approaches and educating all students (0.70).

Alexander (1984) identifies integrated instruction as the cornerstone of the middle school philosophy. The responses of the middle-school participants in the study indicate a rather limited use of integrated approaches. Follow-up interviews with district officials tended to verify these findings. The teams of teachers in this middle school rarely used interdisciplinary or integrated approaches for instructional delivery.

The study reveals the same pattern of correlation for integrated approaches and educating all students. Both are highly linked to all the other dimensions except use of technology, knowledge, and rewards. Both are the most highly associated with information (0.70).

Use of Technology

Walker (1995) viewed the use of technology as an instructional delivery form that produced integrative education. Reibel and Wood (1994) also contended that the use of technology gave students the opportunity to construct connections which conveyed understanding rather than memorization of discrete facts. The data from this study shows that the use of technology for instructional delivery is not associated with any of the other
instructional delivery models. In fact, it is not significantly related to any of the other dimensions of capacity. Respondents did not view the use of technology as a resource or as a means to educate all students, integrate curriculum, or teach for understanding. Moreover, the school (FM) that reports a 99% availability of technology for instruction had only 76% of the respondents reporting the use of technology for instruction. The same school's mean score for the use of technology is only 3.88. However, this was the highest reported degree of all the schools in the study.

**Teaching for Understanding**

Perkins and Blythe (1994) viewed the instructional delivery model of teaching for understanding as a way for students to explain, find examples, predict, and represent their learning in new ways through application. Teaching for understanding required the construction of new knowledge and products by the student. It was an instructional delivery model that was an outgrowth of educating all students and integrated approaches. The data from this study tend to support this point of view. Teaching for understanding is related to educating all students (0.65) and integrated approaches (0.59). This pattern was demonstrated consistently in the three instructional delivery models, specifically educating all students, integrated approaches, and teaching for understanding. Schools consistently scoring high on the presence of one instructional delivery model score high on the other two.

**Leadership**

Overall, the items for leadership have a rather high percent of no response. As with the overall view of the scores by dimension and school, the trend continues for the elementary schools to have the highest scores for the principal's leadership. The middle
and high leadership scores are low compared to the elementary scores for the principal's leadership.

Etheridge (1990) viewed the ideal principal as holding a well-defined view of what needed to be done to improve the school. Beers (1984), Guthrie (1986), Herman (1989a), Marburger (1985), Prasch (1984), and Spear (1983) supported the idea of principal as leader, integrator, and the one individual most able to promote change in an educational setting. Short and Greer (1997) said the principal's “involvement and support of efforts to bring about change in the school setting are critical factors in creating a risk-taking environment where change occurs” (p. 73). Based on the findings of this study, the person or persons most responsible for change in the schools in this district are the faculty. In only one school is the principal given the most credit for initiating change. There was the possibility that the finding in this study was the result of a leader that committed people to action, converting followers into leaders, and possibly converting leaders into change agents (Bennis & Nanus, 1985). Sergiovanni (1990) referred to this transformation of followers to change agents as emergent leadership. According to Sergiovanni (1990), emergent leadership took place when principals provided opportunities for professional staff to become leaders in change. Nevertheless, the findings in this study also present a case that higher leadership scores are associated with a higher probability that changes lead to improved instructional programs for all students.

In addition, Robertson, Wohlstetter, and Mohrman’s (1994) study of 17 schools indicated that "information, instructional guidance and leadership were the most strongly intercorrelated with the other variables and with each other" (p. 15). Information,
instructional guidance and leadership were correlated most strongly with three of the four instructional delivery models which were teaching for understanding, educating all students, and integrated approaches.

The data from this study support the findings of Robertson, Wohlstetter, and Mohrman. In addition, a high correlation was established between leadership and power (0.82) and information and power (0.79). In this study, leadership is significantly correlated with every dimension of capacity except use of technology, knowledge, and rewards. This finding is further supported by the schools' cluster pattern of rank order between their mean scores on leadership and the other dimensions, information, instructional guidance system, teaching for understanding, integrated approaches, and educating all students.

Instructional Guidance System

Rosenholtz (1989) argued that the hallmark of any successful organization was a shared sense among its members about what they were trying to accomplish. O'Neil (1996) emphasized that educators needed to know what they were expected to achieve and how it was to be measured. Teddlie (1994) similarly concluded that effective schools were those that reached a consensus on the school’s mission and goals. The importance of a school’s instructional guidance system was supported by the findings of this study. Without exception, the mean score for the instructional guidance system dimension is the highest score for all the schools in the study. Leadership had the second highest score in all the schools in this study. Not only is the instructional guidance system highly related to leadership, it is highly correlated to every other dimension except use of technology, knowledge, and rewards.
Resources

Corcoran and Goertz (1995) speculated that “good materials might help diffuse good practice” (p. 30). The findings in this study correlate resources to the instructional practices for educating all students (0.61) and integrated approaches (0.67). The data do not show a significant correlation for the instructional practices of teaching for understanding or the use of technology. The correlation is 0.46 between resources and teaching for understanding.

Herman (1989a) defined the ideal leader as “master planner” involving stakeholders in planning and allocating resources to implement the plan. Blase and Blase (1994) indicated that the principal had to provide resources, including time, for staff development and collaboration. The findings in this study indicate that resources significantly correlate with all of the school’s environment indicators except knowledge and rewards. Of the school environment indicators, resources is the most highly correlated with the school’s leadership (0.69). That correlation was followed closely by information and power (0.68) and the school’s instructional guidance system (0.62).

Knowledge

Little (1982) concluded that there was a strong case for a causal relationship between programmatic staff development efforts and developing a school climate for shared decision making as a mechanism for reform. Wohlstetter and Odden (1992) study’s findings indicated the need for an aggressive staff development process for a school’s success in restructuring. Wohlstetter (1995) emphasized a “focus on continuous improvement with school wide training in functional and process skills and in areas related to curriculum and instruction” (p. 23). She observed that in schools where shared
decision making succeeded, professional development was used strategically and was “deliberately tied to the school’s instructional guidance system” (p. 23). The data in this study do not show a significant correlation between knowledge and any of the other dimensions of capacity. Knowledge has the highest correlation (0.33) to leadership followed closely by integrated approaches (0.32) and rewards (0.31).

**Information**

Chorewycz (1994) indicated the importance of the principal as the linkage agent for information and communication. The data from this study indicates a very significant correlation (.80) between leadership and information. It also indicates a significant correlation (.79) with the school’s instructional guidance system.

Mohrman and Wohlstetter (1994) contended that schools “must have access to information about the school and its performance” (p. 178). Wohlstetter (1995) suggested that information had to also include innovations in other schools, districts, and states. This information fostered new practices and learning among teachers. The data from this study support these conclusions. The data show a significant correlation (.70) for information with the instructional delivery models educating all students and integrated approaches. Information also has a rather high correlation (.63) with teaching for understanding.

**Rewards**

Although rewards in education was perceived as a relatively new issue, Lippitt (1967) advocated the principal’s support for innovation as critical in making visible the rewards for teacher innovation. Blase and Blase (1994) suggested that principals needed to exhibit behavior that was supportive, facilitative, and trusting. These behaviors
included the use of symbolic rewards. Lawler (1992) suggested a rewards’ program as a compensation structure which served as an incentive for developing knowledge and skills needed to teach new curriculum standards.

A reliability analysis of this study’s data indicates that the confidence level for rewards is questionable for this population. Therefore, caution should be used in the interpretation and analysis of the data. The results of the analysis indicate that rewards had no significant relationship to the other dimensions of capacity. Reward’s correlation with the instructional delivery models range from -0.06 for teaching for understanding to 0.16 for integrated approaches. Reward’s correlation to the other dimensions of capacity range from a high of 0.31 with knowledge to a low of 0.05 with instructional guidance system. The schools’ mean scores for rewards and knowledge are consistently the lowest of all the dimensions but are the strongest correlation between each other.

Power

Wohlstetter and Mohrman (1994) concluded that authority had to be accompanied by a principal who facilitated participation, a school faculty with few divisive factions, and a general desire of the stakeholders for change. How much power was shared at the school was demonstrated by the number of professional staff who had input into the school’s decision-making process. Their research showed that schools that were successfully restructuring were characterized by multiple, teacher-led decision-making teams that cut across the school and involved all teachers in the school’s decision-making process. These teams also “fostered high level of information sharing and interaction around issues related to school performance” (p. 3).
Although the school district under study has not implemented shared decision making, the schools' instructional councils serve as a mechanism for teacher input to improve the school's instructional program. The data from this study reveal that power is significantly correlated with all of the other dimensions of capacity except use of technology, knowledge and rewards. The correlation for power ranges from a high of 0.82 with leadership to a low of 0.58 for teaching for understanding. The schools’ mean scores’ range is 0.78 (4.15 to 3.37). ‘Yes’/’no’ responses as to whether the instructional council’s decision improved instructional programs and gave faculty input into the school’s decision-making process are not congruent with the mean scores for power. For example, the school with the second highest mean for power, ranks fourth on improved instructional programs but first on faculty input into the school’s decision-making process. The school with the highest power mean for shared power, ranks fourth on faculty input into the school’s decision-making process and second on improved instructional programs for all students. The same school that ranks highest for faculty input into the schools decision making process also ranks faculty as the most responsible (66%) for change in the school. Consistent with the school with the highest mean for power but fourth for faculty input, the school’s faculty received the lowest percentage of responses (29%) and the instructional council ranks first among the other schools (25%) for being most responsible for change.

The study's research findings for power and the schools' instructional councils are consistent with the literature and research findings on the redistribution of power within the school by establishing a shared decision making council. For example, Prager (1993) contended that collaboration did not necessarily lead to improved student learning.
Sidener's (1995) study also showed that the creation of a shared decision making council did not mean that power had been redistributed in a school. In other words, the existence of a shared decision making council or a school instructional council did not automatically lead to increased faculty input into the school's decision making process or the improvement of instructional programs for all students.

Implications

Survey Instrument

It was implied that future results from administration of the survey might be influenced by the factors that affected the utility of the instrument. Such factors as timing and staff development during the educational year are critical. It appears that the time line for staff development and administration of the survey could impact the instrument's utility. It is possible that timing and staff development could increase the receptivity and motivation of the participants to respond to the survey as an assessment and benchmark instrument rather than an evaluation.

The anonymity of the respondents is a factor not only in the collection of demographic data but in the 'no' response rate to dimensions such as leadership and power that possibly elicit thoughts of possible political ramifications. Unless steps are taken to further insure "easily identifiable" participants of their anonymity, their responses are not as likely to be submitted.

Unless the 'yes' / 'no' responses are redesigned, future respondents are likely to continue to assume the "proper way" to mark an item is based on the number on a scantron sheet rather then the directions on the instrument. The response rates for the 'yes' / 'no' items will continue to yield a high no response.
Data

The data has implications as needs assessment for each school's staff development program. The data were constructive in determining how to approach the professional learners' needs. For example, staff development for dimensions of strength must be planned and addressed differently than dimensions for improvement. This data could also be true for the differences in perceptions by professional classification of subgroups in the school. For example, staff development for administrators would be planned differently from that for classroom teachers based on the differences in their perceptions of the dimensions.

Research Findings

The findings of this study have several implicit and emerging implications. As noted by Robertson, Wohlstetter, and Mohrman (1994), professional staff do not perceive the use of technology as an instructional delivery model that is necessarily related to teaching all students, integrating approaches, or teaching for understanding. Not only is technology not associated with instruction, it was not linked to the schools' resources, information, or knowledge. The implication is that technology stands alone in the educational process.

Technology's availability in school FM when compared with the professional staff's utilization of it for instruction is somewhat discouraging. But professional staff's use of technology may be more typical or even higher than most educators want to recognize. The implications of this finding are rather alarming in this "age of information" when technology is considered a key variable in not only acquiring but using information and knowledge to produce a product or accomplish a task.
The implications for knowledge are also worrisome. Previous research indicated the importance of continuous professional training to a school’s success (Little, 1982 & Wohlstetter & Odden, 1992). Yet, the data in this study show not only the lower degree of presence of this dimension compared to other dimensions but also the lack of association with any of the other dimensions of capacity. This finding is a strong indication to the school district, and perhaps to the educational community at large, as to why more schools are unsuccessful in their endeavor to engage in shared decision making as a restructuring mechanisms for reform.

The implications for rewards, although questionable, is not surprising. Rewards were shown to be present in effective schools. Not unlike shared decision making, the concept of enhanced rewards systems which honor productive differences among teachers was extremely popular among those who support reform. Although many teachers embrace the concept and implementation of shared decision-making, most reject the concept of competition and rewards. The finding of this study probably reflects the thinking of how most professional staff at a school perceive rewards for school and teacher performance.

The study’s implications for leadership are in keeping with previous research that demonstrated how important leadership was in building a climate for change as the conscience for the agenda of all students in the school. This leadership was demonstrated in change that focused on improved instructional programs for all students. It was also demonstrated in shared power which provided both access to stakeholders in the school’s decision making process and improved instructional programs for all students. It was demonstrated in the principal’s ability to act as the conduit for internal and external
information, the guardian and monitor of the school's instructional guidance system and resources. That leadership continued to be demonstrated in the role of providing and encouraging the best instructional practices such as integrated approaches, educating all students, and teaching for understanding. The findings of this study verify how crucial leadership is to the success of a school, especially to a school that is preparing to implement a restructuring mechanism such as shared decision-making for systemic reform.

The clustering pattern of rank order identified a relatively common pattern between elementary and secondary schools. That is elementary schools demonstrate more of the qualities of restructuring and systemic reform. The high school and middle school have the lowest mean scores on the dimensions that were significantly correlated. The elementary schools consistently have higher mean scores on the same dimensions. One implication is that although schools' mean scores may differ on one dimension of capacity, it may be possible to predict the other dimensions' mean scores based on the significance of dimensions' relationships.

The overall emerging implication from the data is that school districts could use an instrument to measure the degree to which the dimension of capacity for shared decision making as a restructuring mechanism for systemic reform exists in their schools. From the findings, a school district and schools are better prepared to self-design an educational plan for change and the implementation of shared decision making.
Recommendations

Survey Instrument

Based on the conclusions and implications, the staff development and time line for the survey instrument must be aligned for maximum motivation for the professional staff's receptivity of the survey, the data, and use for educational planning. The recommendation includes staff development training in the fall and winter on educational planning and dimensions of capacity, administration of the survey in early spring, staff development training on the results in late spring, and final staff development training and resultant preliminary educational planning during post planning for the next educational year. This recommendation includes a thorough review of the dimensions of capacity during the principals' training and the administration of the survey to the principals as a separate group.

The classification of professionals by subgroups should be refined based on the size of the district and schools. This could be more definitive in a larger school district. Regardless of the size of the school district, steps should be taken to ensure the anonymity of the respondents.

The directions for marking the scantron sheets for the 'yes'/no' responses should be reformatted. The new formation should state that if no change has occurred, mark 1, and do not respond to the following questions. When respondents do respond to the 'yes'/no' questions, they should respond with either a 1 or 2, not 1 and 3.

The rewards scale should be reviewed for possible revision or addition of items. If revisions are made, the instrument should be administered to another pilot population to test for reliability.
Consideration should be given to adding items that would measure the degree of trust. These items could be used to determine why participants respond to some items and not others.

**Research Questions**

Based on the findings of this study, several recommendations are made for further research. This study should be replicated in other school districts to determine whether the findings from one school district are generally representative of other school districts. This study should also be replicated as a longitudinal study in the participating school district in two years time. Further, studies should be conducted in schools that are perceived as successfully engaged in shared decision making and those considered floundering in the process of implementation.

More correlational studies should be conducted on the relationship of the dimensions of capacity. Again, such studies should be conducted in schools that are perceived as successfully engaged in shared decision making and those considered floundering in the process of implementation. Specific correlations should be examined. For example, it is important to know about the relationship of the use of technology to the other dimensions of capacity such as resources, knowledge, and information. The same type of correlational data is needed for knowledge and its association with the other dimensions of capacity, especially its potential link to rewards. Correlational studies should also focus on a specific dimension; for example, power and its sub components such as the faculty input into decision making and the desired outcomes for improved school programs for all students.
More research is needed on technology and the professional staff's perception of its use as an instructional delivery model. A correlational study should be conducted to determine whether there is a relationship between the professional staff's perceptions of technology for instructional delivery and student performance. There could be a correlation between the stand alone and association perception of technology and student performance in a school.

Finally, other studies should be conducted to help determine the professional staff's perceptions of rewards for schools' and teachers' performance. These studies should focus not only on describing but finding correlations for supporting or resisting the implementation of rewards.
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Directions for Survey Review Form

School Climate: Environmental Indicators and Instructional Delivery Models

On the attached survey review form, please respond to the following information and questions:

*Section I, questions 1-17, of the survey is designed to measure the perceived level of presence of each of the four instructional delivery models: educating all students, teaching for understanding, use of technology, and use of integrated approaches.

Which questions in this section of the survey seem confusing, irrelevant, or otherwise in need of improvement? Please be as specific as possible.

Are there any items that should be added? If so, what? Please refer to the research questions.

*Section II, questions 18-56, of the survey is designed to measure the perceived level of presence of each of the seven environmental indicators: power, leadership, instructional guidance system, information, knowledge, resources, and rewards.

Which questions in this section of the survey seem confusing, irrelevant, or otherwise in need of improvement? Please be as specific as possible.

Are there any items that should be added? If so, what? Please refer to the research questions.

Section III, questions 57-70, of the survey is designed to measure both the perceived level of presence of the four instructional delivery models and seven environmental indicators.

Which questions in this section of the survey seem confusing, irrelevant, or otherwise in need of improvement? Please be as specific as possible.

Are there any items that should be added? If so, what? Please refer to the research questions.

*The research questions and definition of terms are attached.

Please feel free to mark up or edit the survey form and return it with the review sheet.

Thank you for your help.
SURVEY REVIEW FORM

1. The following questions were confusing or in need of improvement:

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2. Are there questions you feel should be added to the survey? If so, why? Please refer to the research questions.

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3. The survey took ______ minutes to complete.

4. Other suggestions regarding the survey? Please feel free to use the back of this page.

Please return your comments to Cheryl Reynolds by Friday, April 12, 1996.
RESEARCH QUESTIONS

The following research questions will be addressed in this study:

I. Instructional Delivery Models
   A. Teaching for Understanding
      To what degree do faculty at each school site believe that teaching is directed to problem solving and increased student understanding rather than rote memorization and reproduction of knowledge?
   
   B. Application of Technology
      To what degree do faculty at each school site believe technology is used to enhance the teaching and learning process?
   
   C. Educating All Students
      To what degree do faculty at each school believe instruction is focused on the differential needs of all students?
   
   D. Use of Integrated Instruction
      To what degree do faculty at each school site believe the precepts of integrated curriculum and instruction are being practiced?

II. Environmental indicators
   A. Power
      To what degree do faculty at each school site believe power has been decentralized to each school?
   
   B. Knowledge
      To what degree do faculty at each school site believe they are able to participate in professional development activities that can increase their knowledge of innovative instructional delivery models, interpersonal skills and team work?
   
   C. Information
      To what degree do faculty at each school site believe information about the school’s performance is being disseminated to the faculty, students, and community?
   
   D. Rewards
      To what degree do faculty at each school believe incentive structures have been initiated that reward both individual and school performance?
E. Instructional Guidance System
To what degree do faculty at each school site believe the teaching and learning process of the school is oriented to achieve the school’s stated vision, mission, and goals?

F. Leadership
To what degree do faculty at each school site believe the principal encourages the adoption of improvement, change and innovative instructional delivery models?

G. Resources
To what degree do faculty at each school site believe the school has successfully competed for outside grant funding (i.e., other than entitlement funds such as Chapter 1 money) and established partnerships with the business community that provides resources for the school?
DEFINITION OF TERMS

Terms used in this study are defined below:

Environmental indicators - The critical characteristics necessary to create an environment for the implementation of SDM:

Power - The extent to which decision-making authority is decentralized to the school level and the extent to which a broad range of school-level constituents are in turn empowered for meaningful involvement in the decision-making process in the areas of budget, personnel, and programs (Robertson, Wohlstetter, & Mohrman, 1994).

Knowledge - Staff development that is measured by active staff participation in professional development opportunities on a regular basis in a broad range of content areas, especially those areas related to participation in decision making and the process of school improvement as well as activities to enhance staff knowledge and skills in the areas of teaching and instruction (Robertson, Wohlstetter, & Mohrman, 1994).

Information - The use of a comprehensive data base and a well-developed system for sharing school-related information among a broad range of constituents. The information encompasses a broad spectrum, including information about innovations in other schools as well as the school's performance. In addition, the school solicits information from external sources as well as internal sources (Robertson, Wohlstetter, & Mohrman, 1994).

Rewards - A compensation system that is effectively tied to staff behavior oriented toward achieving the school's goals (Robertson, Wohlstetter, & Mohrman, 1994).

Instructional Guidance System - The establishment of clear goals through the consensus of the school's faculty. This can be interpreted as the school's vision that embodies a shared instructional philosophy. The instructional guidance system takes the form of an improvement plan that outlines the instructional direction for the school (Robertson, Wohlstetter, & Mohrman, 1994).

Leadership - Building a system that supports the improvement and change process toward the school's desired instructional direction through the coordinated efforts of many individuals. Leaders are described as facilitators for change and school improvement (Robertson, Wohlstetter, & Mohrman, 1994).
**Resources** - In addition to internal resources, the effort to acquire external funding and to develop relationships with the business community that will provide resources to the school. These outside resources are targeted to projects which are directly related to the school vision (Robertson, Wohlstetter, & Mohrman, 1994).

**Instructional delivery models** - New approaches to teaching and learning

**Teaching for Understanding** - Defined by Robertson, Wohlstetter, and Mohrman (1994) as developing students' ability to address complex problems and issues” (p. 8). Activities are “oriented toward higher order thinking skills such as problem solving and creating instead of simply reproducing knowledge” (p. 8). There is also “greater use of interdisciplinary curriculum, cooperative learning, and assessment based on samples of work that illustrate understanding and application rather than memorization and reproduction” (p. 8).

**Use of Technology** - Proposed by Robertson, Wohlstetter, and Mohrman (1994), it is encouraged “as a tool for learning and producing,” especially as related to the “tools of the workplace” (p. 9).

**Educating All Students** - Proposed by Robertson, Wohlstetter, and Mohrman (1994) as “more attention to the effective education of all students, i.e., across the full range of the ability spectrum, reforms in this direction include individualized instruction, non-graded classrooms, and ‘main streaming’ of students with special needs” (p. 9).

**Integrated Approaches** - Defined by Robertson, Wohlstetter, and Mohrman (1994) as “greater integration of the education process; . . . internal integration through team teaching, and external integration through the development of linkages to the community for educational purposes as well as linkages to other relevant community services” (p. 9).
APPENDIX B
SCHOOL CLIMATE
SURVEY

The purpose of this survey is to give faculty members the opportunity to express how they see their school.

All responses are absolutely confidential. All of the questionnaires are identical. No one will be able to identify individual responses. While none of the questions are designed to solicit sensitive information, you may refuse to answer any or all of them.

Schools will not be identified in the collective data. Each school will receive the results for its school only.

DIRECTIONS

On the scan sheet, please bubble in the number that best describes your degree of agreement.

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<tr>
<td>5</td>
<td>A / Agree</td>
</tr>
<tr>
<td>6</td>
<td>SA / Strongly Agree</td>
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</table>

SECTION I

Complete the following: In our school . . .

1. There is a school vision statement delineating the school's specific mission and goals. SD D MD MA A SA

2. Professional development activities are purposely planned to support school-wide improvement. SD D MD MA A SA

3. Faculty members participate in professional-development activities that improve their teaching and delivery of instruction. SD D MD MA A SA

4. Technology is available for students to use for educational purposes. SD D MD MA A SA

5. Individualized instruction is provided for our students as needed. SD D MD MA A SA

6. The curriculum is interdisciplinary. SD D MD MA A SA

7. Information about the school's performance is regularly shared with the faculty and staff. SD D MD MA A SA

8. Community members are surveyed for input to provide direction for school decisions. SD D MD MA A SA

9. There is a shared understanding among the teachers about the instructional direction of the school. SD D MD MA A SA
10. The principal regularly shares information with the school community. SD D MD MA A SA

11. The principal is knowledgeable about curriculum and instructional practices. SD D MD MA A SA

12. Every student in our school can and should be successful. SD D MD MA A SA

13. Multi-grade level / non-graded classes are available for instruction. SD D MD MA A SA

14. Instruction is provided in single subject formats rather than in integrated / multi-disciplinary subject formats. SD D MD MA A SA

15. Students are active in decision-making meetings and groups. SD D MD MA A SA

16. The principal consistently encourages and supports the school faculty. SD D MD MA A SA

17. The principal is effective in conflict resolution. SD D MD MA A SA

18. Assessment of student performance is based on samples of work that illustrate understanding and application. SD D MD MA A SA

19. The school and community work collaboratively to provide educational opportunities for students. SD D MD MA A SA

20. Community agencies provide relevant services to students through the school. SD D MD MA A SA

21. Instructional practices are modified as needed for each student. SD D MD MA A SA

22. Instructional practices permit students to make frequent use of technology. SD D MD MA A SA

23. Counseling services are provided to assist students identified as at-risk. SD D MD MA A SA

24. Teachers play an active role in decision-making meetings / groups concerning the school. SD D MD MA A SA

25. Information about educational research and innovative instructional practices is disseminated on a regular basis. SD D MD MA A SA

26. Members of the community are active in decision-making groups. SD D MD MA A SA
27. Grant funding has been received to implement innovative instructional practices.

28. Mechanisms exist for involving people in decisions affecting the school.

29. Assessment of student performance is based on acquisition of discrete facts rather than understanding concepts and insight development.

30. Intervention programs are provided for academically at-risk students.

31. Teachers frequently use technology in the delivery of instruction.

32. The principal encourages innovative/creative teachers to communicate with their colleagues.

33. There are business partners that provide resources to the school.

34. Curriculum and instruction focus more on problem-solving approaches than on recall of knowledge.

35. Counseling services are provided for students that are in danger of becoming at-risk.

36. School decisions are shared with the students, faculty, and the community.

37. The principal optimizes the availability of resources for instruction.

38. Teacher evaluations are partially based on the demonstrated use of innovative/creative instructional practices.

39. Faculty members have been actively involved with the writing of the school's vision, mission, and goals.

40. Faculty members are surveyed for input to direct school decisions.

41. The principal is involved in the community.

42. The faculty is aware of the school system's vision, mission, and goals.
43. Teachers have the authority to change instructional practices. 

44. The principal shares ideas regarding educational research and innovative / creative practices. 

45. Parents are actively involved in parent meetings, committee memberships, and in volunteer activities. 

46. There is a written school-improvement plan that is based on school priorities. 

47. Faculty members are comfortable sharing ideas about innovative instructional practices with colleagues. 

48. Teachers have many opportunities to participate in the decision-making process. 

49. There are sufficient resources to meet the school's vision, mission and goals. 

50. A component of the teacher evaluation process is the "effectiveness" of instructional delivery. 

51. Teaching is directly related to achieving the school's vision, mission and goals. 

52. The principal shares his / her leadership responsibilities with others in the school. 

53. Highly qualified and innovative faculty and staff are recruited. 

54. Teachers have the authority to change student assessment practices. 

55. Teachers participate in school system decision-making groups. 

56. Our school's vision, mission, and goals are consistent with school system's vision, mission, and goals.
SECTION II

Complete the following: I believe that . . .

57. I am knowledgeable about my school.

58. Teachers must change their instructional practices in order to improve education for all students.

59. Our school needs to change to meet the challenge of educating all students.

60. Teachers need new skills and knowledge to perform their jobs.

61. I am a change agent for improving our school.

62. Teachers' roles in our school need to change to meet the challenge of educating all students.

63. Our school is meeting the educational needs of all students.

64. School improvement is a continuous process.

65. Shared decision making among educators at our school would improve education for all students.

66. Shared decision making among educators and parents would improve education for all students.

67. Shared decision making among professional educators, parents, and students would improve education for all students.

68. Time invested in learning the skills of shared decision making will lead to our school's improvement.

69. Time invested in learning new strategies for instruction and assessment will lead to our school's improvement.

70. Educators should interact with the community to provide educational opportunities for all students.
SECTION III

On the scan sheet, please bubble in the number that represents your response.

1 = No  2 = Not Applicable / NA  3 = Yes
(you marked no to the preceding, underlined, related question)

71. Is technology available in your school for your use?  NO YES

72. If technology is available (you marked yes for #71), do you use it for instruction?  NO NA YES

73. Do you believe the school's instructional council makes decisions that have improved the instructional program?  NO YES

74. Do you believe the instructional council provides the faculty with input into the school's decision-making?  NO YES

75. Do you believe that change has taken place in your school in the past three years?  NO YES

76. If change has taken place (you marked yes for #75), has it improved the instructional program for all students?  NO NA YES

77 - 82. If change did take place (you marked yes for #75), who would you identify as primarily responsible for the change?

(If no change has taken place, leave 77 - 82 blank)

Rank 1-6 the person or groups responsible for the change

Bubble the number that represents your answer.

(6 = most responsible, 1 = least responsible)

77. _____ Faculty Members  79. _____ Superintendent  81. _____ Community Members
78. _____ Board Members  80. _____ Principal  82. _____ Instructional Council

Please go to the next page.
SECTION IV

On the scan sheet, please bubble the number that represents the correct information about you.

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
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<td>White</td>
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<td>85. Years Experience</td>
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<td>6 - 10</td>
<td>11 - 15</td>
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<tr>
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<td>Instructional Assistant</td>
<td>Administrator Guidance or Media</td>
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<tr>
<td>88. Have you served on your school's instructional council?</td>
<td>NO</td>
<td>YES</td>
<td></td>
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</tbody>
</table>

As you exit the room, please place your scan sheet, survey booklet, and pencil in the marked boxes that are on the table by the door.

Thank you for taking the time to complete this survey.
APPENDIX C
May 2, 1996

Cheryl Grayson Reynolds
P.O. Box 1378
Tybee Island, GA 31328

Dear Cheryl:

Thank you for sharing with me the survey you developed to evaluate school climate, based on research conducted by the Center on Educational Governance. I am very impressed by both the content and format of your survey instrument. I also think you have been extremely creative in extending the usefulness of our research into a new arena, to assess school readiness for change. Your research will make a significant contribution to the field by building a stronger connection between the theory of how school-based management works and the practice of school-based management.

Thank you again for sharing your work. I look forward to hearing about your results. Good luck!

Very truly yours,

Priscilla Wohlstetter
Associate Professor of Education
APPENDIX D
Revised Item Code

* = Rewritten  
R = Reverse

<table>
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<tr>
<th>L= leadership</th>
<th>IGS= instructional guidance system</th>
<th>RES= resources</th>
<th>K= knowledge</th>
<th>I= information</th>
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<td>72 83</td>
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EDUCATIONAL PLANNING

All responses are absolutely confidential. All of the questionnaires are identical. No one will be able to identify individual responses.

DIRECTIONS

On the scan sheet, please bubble in the number that best describes your degree of agreement.

Number 1 = SD / Strongly Disagree
Number 2 = D / Disagree
Number 3 = MD / Moderately Disagree
Number 4 = MA / Moderately Agree
Number 5 = A / Agree
Number 6 = SA / Strongly Agree

SECTION I

Complete the following: In our school district . . .

1. The superintendent is knowledgeable about curriculum and instructional practices.
   SD D MD MA A SA

2. The superintendent shares ideas with administrators and teachers regarding educational research and instructional practices.
   SD D MD MA A SA

3. The superintendent is accessible to administrators, teachers, parents and the community.
   SD D MD MA A SA

4. The superintendent encourages and supports administrators and teachers.
   SD D MD MA A SA

5. The superintendent is effective in conflict resolution.
   SD D MD MA A SA

6. The superintendent is involved in the community.
   SD D MD MA A SA

7. The superintendent provides opportunities for teachers to have an active role in decision making meetings concerning the school system.
   SD D MD MA A SA

8. The superintendent engages members of the community in decision-making meetings.
   SD D MD MA A SA
SECTION II

Complete the following: In our school . . .

9. There is a school vision statement delineating the school’s specific mission and goals.  
   SD D MD MA A SA

10. Professional development activities are purposely planned to support school-wide improvement.  
    SD D MD MA A SA

11. Faculty members participate in professional-development activities that improve their teaching and delivery of instruction.  
    SD D MD MA A SA

12. Technology is available for students to use for educational purposes.  
    SD D MD MA A SA

13. Individualized instruction is provided for our students as needed.  
    SD D MD MA A SA

14. The curriculum is interdisciplinary.  
    SD D MD MA A SA

15. Information about the school’s performance is regularly shared with the faculty and staff.  
    SD D MD MA A SA

16. Community members are surveyed for input to provide direction for school decisions.  
    SD D MD MA A SA

17. There is a shared understanding among the teachers about the instructional direction of the school.  
    SD D MD MA A SA

18. The principal regularly shares information with the school community.  
    SD D MD MA A SA

19. The principal is knowledgeable about curriculum and instructional practices.  
    SD D MD MA A SA

20. Every student in our school can and should be successful.  
    SD D MD MA A SA

21. Learning tasks are provided for “multiple intelligence” styles and multiple cultures.  
    SD D MD MA A SA

22. Academic disciplines are integrated in the curriculum.  
    SD D MD MA A SA
23. Students are active in decision-making meetings and groups.  

24. The principal consistently encourages and supports the school faculty.  

25. The principal is effective in conflict resolution.  

26. Student performance is evaluated based on samples of student work that illustrate understanding.  

27. The school and community work collaboratively to provide educational opportunities for students.  

28. Community agencies provide relevant services to students through the school.  

29. Instructional practices are modified as needed for each student.  

30. Instructional practices permit students to make frequent use of technology.  

31. Counseling services are provided to assist students identified as at-risk.  

32. Teachers play an active role in decision-making meetings / groups concerning the school.  

33. Information about educational research and innovative instructional practices is disseminated on a regular basis.  

34. Members of the community are active in decision-making groups.  

35. Grant funding has been received to implement innovative instructional practices.  

36. Mechanisms exist for involving people in decisions affecting the school.  

37. Learning and assessment tasks emphasize student reproduction of knowledge rather than application of knowledge.  

38. Intervention programs are provided for academically at-risk students.  

39. Teachers frequently use technology in the delivery of instruction.
40. The principal encourages innovative / creative teachers to communicate with their colleagues.

41. There are business partners that provide resources to the school.

42. Learning tasks emphasize problem-solving approaches more than recall of knowledge.

43. Counseling services are provided for students that are in danger of becoming at-risk.

44. School decisions are shared with the students, faculty and the community.

45. The principal optimizes the availability of resources for instruction.

46. Teacher evaluations are partially based on the demonstrated use of innovative / creative instructional practices.

47. Faculty members have been actively involved with the writing of the school’s vision, mission and goals.

48. Faculty members are surveyed for input to direct school decisions.

49. The principal is involved in the community.

50. The faculty is aware of the school system’s vision, mission and goals.

51. Teachers have the authority to change instructional practices.

52. The principal shares ideas regarding educational research and innovative / creative practices.

53. Parents are actively involved in parent meetings, committee memberships, and in volunteer activities.

54. There is a written school-improvement plan that is based on school priorities.

55. Faculty members are comfortable sharing ideas about innovative instructional practices with colleagues.

56. Teachers have many opportunities to participate in the decision-making.
process.

57. There are sufficient resources to meet the school's vision, mission and goals.

58. A component of the teacher evaluation process is the "effectiveness" of instructional delivery.

59. Teaching is directly related to achieving the school's vision, mission and goals.

60. The principal shares his / her leadership responsibilities with others in the school.

61. Faculty members are recruited and hired based on their qualifications and ability to teach a diversified student population.

62. Teachers have the authority to change student assessment practices.

63. Teachers participate in school system decision-making groups.

64. Our school's vision, mission, and goals are consistent with school system's vision, mission, and goals.

65. Students participate in community-based learning.

66. Learning tasks require students to speak and write more frequently in full sentences and continuous sequences rather than in a few-word fragments.

67. Learning tasks aim for depth of understanding rather than broad exposure.
Complete the following: I believe that . . .

68. I am knowledgeable about my school.

69. Teachers must change their instructional practices in order to improve education for all students.

70. Our school needs to change to meet the challenge of educating all students.

71. Teachers need staff development programs which focus on learning tasks for "multiple intelligent" styles and multiple cultures.

72. I am a change agent for improving our school.

73. Teachers' roles in our school need to change to meet the challenge of educating all students.

74. Our school is meeting the educational needs of all students.

75. School improvement is a continuous process.

76. There should be specific incentives for teachers to experiment and develop new programs and curriculum that meet the needs of all students.

77. Teachers should receive financial rewards based on student outcomes.

78. Schools should receive financial rewards based on student outcomes.

79. Time invested in learning the skills of shared decision making will lead to our school's improvement.

80. Time invested in learning new strategies for instruction and assessment will lead to our school's improvement.

81. Educators should interact with the community to provide educational opportunities for all students.
SECTION IV

On the scan sheet, please bubble in the number that represents your response.

1 = No  2 = Not Applicable / NA  3 = Yes

(2 is only marked after you have marked no to the preceding, bolded, underlined, related question)

82. Is computer technology available for your use in your school? NO YES
83. If technology is available (you marked yes for # 82 ), do you use it to assist your students with their learning tasks? NO NA YES
84. Do you believe the school's instructional council makes decisions that have improved the instructional program? NO YES
85. Do you believe the instructional council provides the faculty with input into the school's decision-making? NO YES
86. Do you believe that change has taken place in your school in the past three years? NO YES
87. If change has taken place (you marked yes for # 86 ), has the change improved the instructional program for all students? NO NA YES
88 - 93. If change has taken place (you marked yes for # 86 ), who would you identify as primarily responsible for the change?

(If change has not taken place, leave #88 - 93 blank)

Rank 1-6 the person or groups responsible for the change

Bubble the number that represents your answer.

(6 = most responsible, 1 = least responsible)

88. _____ Faculty Members  90. _____ Superintendent Members  92. _____ Community Members
89. _____ Board Members  91. _____ Principal  93. _____ Instructional Council

Please go to the next page.
**SECTION V**

*On the scantron sheet, please bubble the number that represents the correct information about you.*

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<td>95. Ethnicity:</td>
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<td>96. Years Experience</td>
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<td>6 -10</td>
<td>11 - 15</td>
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<td>21 +</td>
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<td>97. Age</td>
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<td>30 -39</td>
<td>40 - 49</td>
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<td>60 +</td>
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<tr>
<td>98 Role:</td>
<td>Classroom Teacher</td>
<td>Resource Teacher</td>
<td>Instructional Assistant</td>
<td>Administrator Guidance or Media</td>
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<tr>
<td>99. Have you served on your school's instructional council?</td>
<td>NO</td>
<td>YES</td>
<td></td>
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</table>

As you leave, please place your scantron sheet, questionnaire, current issues checklist and pencil in the respectively marked boxes.

*Thank you for taking the time to provide me with this information.*
APPENDIX F
to: Field Study Participants
from: Cheryl Reynolds
subject: Test - Retest Reliability
date:

Thank you for volunteering to respond to this survey twice. Your responses to the items on the survey will be used in the development of the survey to establish test-retest reliability. Your responses will not generate data on or about your school or school system.

DIRECTIONS

Use the scantron sheet to respond to the survey items. Please use a No. 2 pencil only.

In order to match your responses from the first and second administrations, you will need a four number code as an ID that only you can identify as yours. I suggest you use a birthday of someone significant in your life. For example: March 19 would be marked as 0319. Following the directions and example marked IMPORTANT on the scantron sheet, code your ID number in the top left hand box. 0319 would be marked as follows:

0 on the first line
3 on the second line
1 on the third line
9 on the fourth line

Please remember your ID number. You will need to use the same ID on the second administration.

Please read and follow the directions on the survey. You will note that some terms such as instructional council are generic concepts that can be identified by other labels such as leadership team.

If you have any problems with any item, let the administrator know or write your comments below.

Return this sheet with your survey when you leave.

Thank You
SURVEY LETTER

to: Field Study Participants
from: Cheryl Reynolds
subject: Test - Retest Reliability
date:

Thank you for volunteering to respond to this survey twice. Your responses to the items on the survey will be used in the development of the survey to establish test - retest reliability. **Your responses will not generate data on or about your school or school system.**

**DIRECTIONS**

Use the scantron sheet to respond to the survey items. Please use a No. 2 pencil only.

In order to match your responses from the first and second administrations, **please use the same four number ID that you used on the first administration of the survey.** I suggested you use a birthday of someone significant in your life. I used the example: March 19 that would be marked as 0319. Following the directions and example marked **IMPORTANT** on the scantron sheet, code your ID number in the top left-hand box. 0319 would be marked as follows:

1. 0 on the first line
2. 3 on the second line
3. 1 on the third line
4. 9 on the fourth line

Please read and follow the directions on the survey. You will note that some terms such as instructional council are generic concepts that can be identified by other labels such as leadership team.

If you have any problems with any item, let the administrator know or write your comments below.

Return this sheet with your survey when you leave.

Thank You
Dear Research Participant:

I would like to thank you for volunteering to participate in this study prior to your district’s implementation of shared decision making policies. As a doctoral candidate at Georgia Southern University, this research data will be used in my dissertation as a correlation study to determine what relationship, if any, exists between and among the dimensions of capacity for shared decision making in a school. This research will probe the complex interplay of multi variables that may impact on the adoption of reform initiatives. The results of this research will expand the knowledge base on school climate and reform initiatives.

Thank you in advance for assisting me by completing the survey. Completion and return of the questionnaire will be considered permission to use your responses in the study. Your responses will be absolutely confidential. All of the questionnaires are identical. Neither I nor anyone else will be able to identify individual responses from other participants. While none of the questions are designed to solicit sensitive information, participants may refuse to answer any of them.

If you have any questions about the survey or research, you may contact me at 912/786-9500. If you have any question or concerns about your rights as a research participant in this study, you may contact Tom Case, Ph.D., Chair of the Institutional Review Board at Georgia Southern University, 912/681-5205.

Sincerely,

Cheryl Grayson Reynolds
APPENDIX H
Use of Technology for Instructional Delivery

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### Instructional Council’s Leadership for Change

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### Change and Improved Instructional Programs for All Students

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*IIPAS = Improved Instructional Programs for All Students*
APPENDIX K
**Power, Faculty Input and Improved Instructional Programs for All Students**

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*FI = Faculty Input into Decision

**IIPAS = Improved Instructional Programs for All Students**
APPENDIX L
INSTITUTIONAL REVIEW BOARD
GEORGIA SOUTHERN UNIVERSITY

To be submitted to the Institutional Review Board for the protection of Human Subjects in Research prior to the initiation of any investigation involving human subjects. A copy of the research proposal and approval form must be attached.

APPROVAL FORM

Date: February 23, 1996

Research Title: The Adoption of Shared Decision-Making: Environmental Readiness for Structural Change

Principal Investigator: Cheryl Grayson Reynolds Title: Doctoral Student

Department: Educational Leadership, Technology & Research

Campus Address: Landrum Box 8143 Phone: 912/681-5307

Signature: [Signature]
Principal Investigator

[Signature]
Department Head
Ronald G. Davison

Determination of Institutional Review Board:

Human Subjects: ☑ Not At Risk
Action: ☑ Approved  ☐ Not Approved  ☐ Reapproved  ☐ Returned for Revisions

Signed: [Signature]  Date: 3/6/96
Chair, Institutional Review Board
APPENDIX M
Panel of Experts

Panelists employed by or affiliated with the school district participating in the study have their identity protected. Therefore, they will not be named. Other panelists included the following persons:

Lynn Canady
Ron Davison
J. W. Good
Steve Jenkins
Anne Monaghan
Anne Montgomery
Tom Montgomery
Dan Talany
Carl Waterbrook

In addition, the survey was reviewed by members of the doctoral committee at the preprospectus and prospectus defense. The members of that committee included the following persons:

Ron Davison - Chair
John Gooden
Steve Jenkins
Michael Richardson
Debra Thomas